

SEQUENCE LISTING

<110> Brad St. Croix
Bert Vogelstein
Kenneth Kinzler

<120> ENDOTHELIAL CELL EXPRESSION PATTERNS

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<212> PRT
<213> *Homo sapiens*

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Ser Cys Tyr Ala Leu Phe Pro Arg Arg Arg Thr Phe Leu Glu Ala Trp
      35          40          45
Arg Ala Cys Arg Glu Leu Gly Gly Asp Leu Ala Thr Pro Arg Thr Pro
      50          55          60

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 Gln Arg Pro Leu Arg Gly Phe Thr Trp Thr Thr Gly Asp Gln Asp Thr
 100 105 110
 Ala Phe Thr Asn Trp Ala Gln Pro Ala Ser Gly Gly Pro Cys Pro Ala
 115 120 125
 Gln Arg Cys Val Ala Leu Glu Ala Ser Gly Glu His Arg Trp Leu Glu
 130 135 140
 Gly Ser Cys Thr Leu Ala Val Asp Gly Tyr Leu Cys Gln Phe Gly Phe
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 Glu Gly Ala Cys Pro Ala Leu Gln Asp Glu Ala Gly Gln Ala Gly Pro
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 Ala Val Tyr Thr Pro Phe His Leu Val Ser Thr Glu Phe Glu Trp
 180 185 190
 Leu Pro Phe Gly Ser Val Ala Ala Val Gln Cys Gln Ala Gly Arg Gly
 195 200 205
 Ala Ser Leu Leu Cys Val Lys Gln Pro Glu Gly Gly Val Gly Trp Ser
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 Arg Ala Gly Pro Leu Cys Leu Gly Thr Gly Cys Ser Pro Asp Asn Gly
 225 230 235 240
 Gly Cys Glu His Glu Cys Val Glu Glu Val Asp Gly His Val Ser Cys
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 Arg Cys Thr Glu Gly Phe Arg Leu Ala Ala Asp Gly Arg Ser Cys Glu
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 Asp Pro Cys Ala Gln Ala Pro Cys Glu Gln Gln Cys Glu Pro Gly Gly
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 Pro Gln Gly Tyr Ser Cys His Cys Arg Leu Gly Phe Arg Pro Ala Glu
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 Asp Asp Pro His Arg Cys Val Asp Thr Asp Glu Cys Gln Ile Ala Gly
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 Val Cys Gln Gln Met Cys Val Asn Tyr Val Gly Gly Phe Glu Cys Tyr
 325 330 335
 Cys Ser Glu Gly His Glu Leu Glu Ala Asp Gly Ile Ser Cys Ser Pro
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 Ala Gly Ala Met Gly Ala Gln Ala Ser Gln Asp Leu Gly Asp Glu Leu
 355 360 365
 Leu Asp Asp Gly Glu Asp Glu Glu Asp Glu Asp Glu Ala Trp Lys Ala
 370 375 380
 Phe Asn Gly Gly Trp Thr Glu Met Pro Gly Ile Leu Trp Met Glu Pro
 385 390 395 400
 Thr Gln Pro Pro Asp Phe Ala Leu Ala Tyr Arg Pro Ser Phe Pro Glu
 405 410 415
 Asp Arg Glu Pro Gln Ile Pro Tyr Pro Glu Pro Thr Trp Pro Pro Pro
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 Leu Ser Ala Pro Arg Val Pro Tyr His Ser Ser Val Leu Ser Val Thr
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 Arg Pro Val Val Val Ser Ala Thr His Pro Thr Leu Pro Ser Ala His
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 Gln Pro Pro Val Ile Pro Ala Thr His Pro Ala Leu Ser Arg Asp His
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 Gln Ile Pro Val Ile Ala Ala Asn Tyr Pro Asp Leu Pro Ser Ala Tyr
 485 490 495
 Gln Pro Gly Ile Leu Ser Val Ser His Ser Ala Gln Pro Pro Ala His
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 Gln Pro Pro Met Ile Ser Thr Lys Tyr Pro Glu Leu Phe Pro Ala His
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 Gln Ser Pro Met Phe Pro Asp Thr Arg Val Ala Gly Thr Gln Thr Thr
 530 535 540
 Thr His Leu Pro Gly Ile Pro Pro Asn His Ala Pro Leu Val Thr Thr

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Thr Gln Ala Thr Gln Leu Pro Ile Ile Pro Thr Ala Gln Pro Ser	Leu		
580	585	590	
Thr Thr Ser Arg Ser Pro Val Ser Pro Ala His Gln Ile Ser	Val		
595	600	605	
Pro Ala Ala Thr Gln Pro Ala Ala Leu Pro Thr Leu Leu Pro Ser	Gln		
610	615	620	
Ser Pro Thr Asn Gln Thr Ser Pro Ile Ser Pro Thr His Pro His	Ser		
625	630	635	640
Lys Ala Pro Gln Ile Pro Arg Glu Asp Gly Pro Ser Pro Lys Leu	Ala		
645	650	655	
Leu Trp Leu Pro Ser Pro Ala Pro Thr Ala Ala Pro Thr Ala Leu	Gly		
660	665	670	
Glu Ala Gly Leu Ala Glu His Ser Gln Arg Asp Asp Arg Trp Leu	Leu		
675	680	685	
Val Ala Leu Leu Val Pro Thr Cys Val Phe Leu Val Val Leu Leu	Ala		
690	695	700	
Leu Gly Ile Val Tyr Cys Thr Arg Cys Gly Pro His Ala Pro Asn	Lys		
705	710	715	720
Arg Ile Thr Asp Cys Tyr Arg Trp Val Ile His Ala Gly Ser Lys	Ser		
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Pro Thr Glu Pro Met Pro Pro Arg Gly Ser Leu Thr Gly Val Gln	Thr		
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Arg Met Val Val Leu Gly Ala Ser Arg Val Gly Lys Ser Ser Ile	Val		
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Ser Arg Phe Leu Asn Gly Arg Phe Glu Asp Gln Tyr Thr Pro Thr	Ile		
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Glu Asp Phe His Arg Lys Val Tyr Asn Ile Arg Gly Asp Met Tyr	Gln		
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Leu Asp Ile Leu Asp Thr Ser Gly Asn His Pro Phe Pro Ala Met	Arg		
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Arg Leu Ser Ile Leu Thr Gly Asp Val Phe Ile Leu Val Phe Ser	Leu		
100	105	110	
Asp Asn Arg Glu Ser Phe Asp Glu Val Lys Arg Leu Gln Lys Gln	Ile		
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Leu Glu Val Lys Ser Cys Leu Lys Asn Lys Thr Lys Glu Ala Ala	Glu		
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Leu Pro Met Val Ile Cys Gly Asn Lys Asn Asp His Gly Glu Leu	Cys		
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Arg Gln Val Pro Thr Thr Glu Ala Glu Leu Leu Val Ser Gly Asp	Glu		
165	170	175	
Asn Cys Ala Tyr Phe Glu Val Ser Ala Lys Lys Asn Thr Asn Val	Asp		
180	185	190	
Glu Met Phe Tyr Val Leu Phe Ser Met Ala Lys Leu Pro His Glu	Met		
195	200	205	
Ser Pro Ala Leu His Arg Lys Ile Ser Val Gln Tyr Gly Asp Ala	Phe		

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Gly Met Val Ser Pro Phe Ala Arg Arg Pro Ser Val Asn Ser Asp Leu		240
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Asp Lys Cys Thr Ile Gln		
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<210> 179
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 <212> PRT
 <213> Homo sapiens

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Ser Gly Trp Ala Ala Lys Gly Thr Val Arg Gly Trp Asn Arg Arg Ala			
35	40	45	
Arg Glu Ser Pro Gly His Val Ser Glu Pro Asp Arg Thr Gln Leu Ser			
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Gln Asp Leu Gly Gly Thr Leu Ala Met Asp Thr Leu Pro Asp Asn			
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Arg Thr Arg Val Val Glu Asp Asn His Ser Tyr Tyr Val Ser Arg Leu			
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Tyr Gly Pro Ser Glu Pro His Ser Arg Glu Leu Trp Val Asp Val Ala			
100	105	110	
Glu Ala Asn Arg Ser Gln Val Lys Ile His Thr Ile Leu Ser Asn Thr			
115	120	125	
His Arg Gln Ala Ser Arg Val Val Leu Ser Phe Asp Phe Pro Phe Tyr			
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Gly His Pro Leu Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile Phe			
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Met Gly Asp Val Ile His Arg Met Leu Thr Ala Thr Gln Tyr Val Ala			
165	170	175	
Pro Leu Met Ala Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr Val			
180	185	190	
Val Tyr Phe Asp Asn Gly Thr Val Phe Val Val Gln Trp Asp His Val			
195	200	205	
Tyr Leu Gln Gly Trp Glu Asp Lys Gly Ser Phe Thr Phe Gln Ala Ala			
210	215	220	
Leu His His Asp Gly Arg Ile Val Phe Ala Tyr Lys Glu Ile Pro Met			
225	230	235	240
Ser Val Pro Glu Ile Ser Ser Ser Gln His Pro Val Lys Thr Gly Leu			
245	250	255	
Ser Asp Ala Phe Met Ile Leu Asn Pro Ser Pro Asp Val Pro Glu Ser			
260	265	270	
Arg Arg Arg Ser Ile Phe Glu Tyr His Arg Ile Glu Leu Asp Pro Ser			
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Lys Val Thr Ser Met Ser Ala Val Glu Phe Thr Pro Leu Pro Thr Cys			
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Leu Gln His Arg Ser Cys Asp Ala Cys Met Ser Ser Asp Leu Thr Phe			
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Asn Cys Ser Trp Cys His Val Leu Gln Arg Cys Ser Ser Gly Phe Asp			
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Arg Tyr Arg Gln Glu Trp Asp Gly Thr Met Gly Cys Ala Gln Glu Ala			
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Glu Gly Gln Asp Val Arg Gly Leu Pro Gly Met Arg Thr Thr Ser			

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370	375	380
Thr Ser Ser Ser Leu Phe Ile Asp Ser Leu Thr Thr Glu Asp Asp Thr		
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Lys Leu Asn Pro Tyr Ala Gly Gly Asp Gly Leu Gln Asn Asn Leu Ser		
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Pro Lys Thr Lys Gly Thr Pro Val His Leu Gly Thr Ile Val Gly Ile		
420	425	430
Val Leu Ala Val Leu Leu Val Ala Ala Ile Ile Leu Ala Gly Ile Tyr		
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Ile Asn Gly His Pro Thr Ser Asn Ala Ala Leu Phe Phe Ile Glu Arg		
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Arg Pro His His Trp Pro Ala Met Lys Phe Arg Ser His Pro Asp His		
465	470	475
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515	520	525
His Asp Glu Gly Pro Gly Ser Gly Trp Ala Ala Lys Gly Thr Val Arg		
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Gly Trp Asn Arg Arg Ala Arg Glu Ser Pro Gly His Val Ser Glu Pro		
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Asp Arg Thr Gln Leu Ser Gln Asp Leu Gly Gly Thr Leu Ala Met		
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Asp Thr Leu Pro Asp Asn Arg Thr Arg Val Val Glu Asp Asn His Ser		
580	585	590
Tyr Tyr Val Ser Arg Leu Tyr Gly Pro Ser Glu Pro His Ser Arg Glu		
595	600	605
Leu Trp Val Asp Val Ala Glu Ala Asn Arg Ser Gln Val Lys Ile His		
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Thr Ile Leu Ser Asn Thr His Arg Gln Ala Ser Arg Val Val Leu Ser		
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705	710	715
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Phe Thr Phe Gln Ala Ala Leu His His Asp Gly Arg Ile Val Phe Ala		
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Tyr Lys Glu Ile Pro Met Ser Val Pro Glu Ile Ser Ser Ser Gln His		
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 Ala Gly Ile Tyr Ile Asn Gly His Pro Thr Ser Asn Ala Ala Leu Phe
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 Phe Ile Glu Arg Arg Pro His His Trp Pro Ala Met Lys Phe Arg Ser
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 <212> DNA
 <213> Homo sapiens

<400> 180

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<211> 2535

<212> DNA

<213> Mus musculus

<400> 182

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<400> 183

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<212> DNA
<213> Mus musculus

<400> 184						
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<211> 2009
<212> DNA
<213> Mus musculus

<400> 185

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<211> 5220
<212> DNA
<213> Mus musculus

<400> 186

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 <212> PRT
 <213> Homo sapiens

<400> 187						
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Glu Asp Gly Gly Pro Ala Cys Tyr Gly Gly Phe Asp Leu Tyr Phe Ile	35	40	45			
Leu Asp Lys Ser Gly Ser Val Leu His His Trp Asn Glu Ile Tyr Tyr	50	55	60			
Phe Val Glu Gln Leu Ala His Lys Phe Ile Ser Pro Gln Leu Arg Met	65	70	75	80		
Ser Phe Ile Val Phe Ser Thr Arg Gly Thr Thr Leu Met Lys Leu Thr	85	90	95			
Glu Asp Arg Glu Gln Ile Arg Gln Gly Leu Glu Glu Leu Gln Lys Val	100	105	110			
Leu Pro Gly Gly Asp Thr Tyr Met His Glu Gly Phe Glu Arg Ala Ser	115	120	125			
Glu Gln Ile Tyr Tyr Glu Asn Arg Gln Gly Tyr Arg Thr Ala Ser Val	130	135	140			
Ile Ile Ala Leu Thr Asp Gly Glu Leu His Glu Asp Leu Phe Phe Tyr	145	150	155	160		
Ser Glu Arg Glu Ala Asn Arg Ser Arg Asp Leu Gly Ala Ile Val Tyr	165	170	175			
Cys Val Gly Val Lys Asp Phe Asn Glu Thr Gln Leu Ala Arg Ile Ala	180	185	190			
Asp Ser Lys Asp His Val Phe Pro Val Asn Asp Gly Phe Gln Ala Leu	195	200	205			
Gln Gly Ile Ile His Ser Ile Leu Lys Lys Ser Cys Ile Glu Ile Leu	210	215	220			
Ala Ala Glu Pro Ser Thr Ile Cys Ala Gly Glu Ser Phe Gln Val Val	225	230	235	240		

Val Arg Gly Asn Gly Phe Arg His Ala Arg Asn Val Asp Arg Val Leu
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 Cys Ser Phe Lys Ile Asn Asp Ser Val Thr Leu Asn Glu Lys Pro Phe
 260 265 270
 Ser Val Glu Asp Thr Tyr Leu Leu Cys Pro Ala Pro Ile Leu Lys Glu
 275 280 285
 Val Gly Met Lys Ala Ala Leu Gln Val Ser Met Asn Asp Gly Leu Ser
 290 295 300
 Phe Ile Ser Ser Ser Val Ile Ile Thr Thr His Cys Ser Asp Gly
 305 310 315 320
 Ser Ile Leu Ala Ile Ala Leu Leu Ile Leu Phe Leu Leu Leu Ala Leu
 325 330 335
 Ala Leu Leu Trp Trp Phe Trp Pro Leu Cys Cys Thr Val Ile Ile Lys
 340 345 350
 Glu Val Pro Pro Pro Ala Glu Glu Ser Glu Glu Asp Asp Asp
 355 360 365
 Gly Leu Pro Lys Lys Lys Trp Pro Thr Val Asp Ala Ser Tyr Tyr Gly
 370 375 380
 Gly Arg Gly Val Gly Gly Ile Lys Arg Met Glu Val Arg Trp Gly Glu
 385 390 395 400
 Lys Gly Ser Thr Glu Glu Gly Ala Lys Leu Glu Lys Ala Lys Asn Ala
 405 410 415
 Arg Val Lys Met Pro Glu Gln Glu Tyr Glu Phe Pro Glu Pro Arg Asn
 420 425 430
 Leu Asn Asn Asn Met Arg Arg Pro Ser Ser Pro Arg Lys Trp Tyr Ser
 435 440 445
 Pro Ile Lys Gly Lys Leu Asp Ala Leu Trp Val Leu Leu Arg Lys Gly
 450 455 460
 Tyr Asp Arg Val Ser Val Met Arg Pro Gln Pro Gly Asp Thr Gly Arg
 465 470 475 480
 Cys Ile Asn Phe Thr Arg Val Lys Asn Asn Gln Pro Ala Lys Tyr Pro
 485 490 495
 Leu Asn Asn Ala Tyr His Thr Ser Ser Pro Pro Pro Ala Pro Ile Tyr
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<210> 188
 <211> 1331
 <212> PRT
 <213> Homo sapiens

<400> 188
 Met Arg Gly Ala Pro Ala Arg Leu Leu Leu Pro Leu Leu Pro Trp Leu
 1 5 10 15
 Leu Leu Leu Leu Ala Pro Glu Ala Arg Gly Ala Pro Gly Cys Pro Leu
 20 25 30
 Ser Ile Arg Ser Cys Lys Cys Ser Gly Glu Arg Pro Lys Gly Leu Ser
 35 40 45
 Gly Gly Val Pro Gly Pro Ala Arg Arg Arg Val Val Cys Ser Gly Gly
 50 55 60
 Asp Leu Pro Glu Pro Pro Glu Pro Gly Leu Leu Pro Asn Gly Thr Val
 65 70 75 80
 Thr Leu Leu Leu Ser Asn Asn Lys Ile Thr Gly Leu Arg Asn Gly Ser
 85 90 95

Phe Leu Gly Leu Ser Leu Leu Glu Lys Leu Asp Leu Arg Asn Asn Ile
 100 105 110
 Ile Ser Thr Val Gln Pro Gly Ala Phe Leu Gly Leu Glu Leu Lys
 115 120 125
 Arg Leu Asp Leu Ser Asn Asn Arg Ile Gly Cys Leu Thr Ser Glu Thr
 130 135 140
 Phe Gln Gly Leu Pro Arg Leu Leu Arg Leu Asn Ile Ser Gly Asn Ile
 145 150 155 160
 Phe Ser Ser Leu Gln Pro Gly Val Phe Asp Glu Leu Pro Ala Leu Lys
 165 170 175
 Val Val Asp Leu Gly Thr Glu Phe Leu Thr Cys Asp Cys His Leu Arg
 180 185 190
 Trp Leu Leu Pro Trp Ala Gln Asn Arg Ser Leu Gln Leu Ser Glu His
 195 200 205
 Thr Leu Cys Ala Tyr Pro Ser Ala Leu His Ala Gln Ala Leu Gly Ser
 210 215 220
 Leu Gln Glu Ala Gln Leu Cys Cys Glu Gly Ala Leu Glu Leu His Thr
 225 230 235 240
 His His Leu Ile Pro Ser Leu Arg Gln Val Val Phe Gln Gly Asp Arg
 245 250 255
 Leu Pro Phe Gln Cys Ser Ala Ser Tyr Leu Gly Asn Asp Thr Arg Ile
 260 265 270
 Arg Trp Tyr His Asn Arg Ala Pro Val Glu Gly Asp Glu Gln Ala Gly
 275 280 285
 Ile Leu Leu Ala Glu Ser Leu Ile His Asp Cys Thr Phe Ile Thr Ser
 290 295 300
 Glu Leu Thr Leu Ser His Ile Gly Val Trp Ala Ser Gly Glu Trp Glu
 305 310 315 320
 Cys Thr Val Ser Met Ala Gln Gly Asn Ala Ser Lys Lys Val Glu Ile
 325 330 335
 Val Val Leu Glu Thr Ser Ala Ser Tyr Cys Pro Ala Glu Arg Val Ala
 340 345 350
 Asn Asn Arg Gly Asp Phe Arg Trp Pro Arg Thr Leu Ala Gly Ile Thr
 355 360 365
 Ala Tyr Gln Ser Cys Leu Gln Tyr Pro Phe Thr Ser Val Pro Leu Gly
 370 375 380
 Gly Gly Ala Pro Gly Thr Arg Ala Ser Arg Arg Cys Asp Arg Ala Gly
 385 390 395 400
 Arg Trp Glu Pro Gly Asp Tyr Ser His Cys Leu Tyr Thr Asn Asp Ile
 405 410 415
 Thr Arg Val Leu Tyr Thr Phe Val Leu Met Pro Ile Asn Ala Ser Asn
 420 425 430
 Ala Leu Thr Leu Ala His Gln Leu Arg Val Tyr Thr Ala Glu Ala Ala
 435 440 445
 Ser Phe Ser Asp Met Met Asp Val Val Tyr Val Ala Gln Met Ile Gln
 450 455 460
 Lys Phe Leu Gly Tyr Val Asp Gln Ile Lys Glu Leu Val Glu Val Met
 465 470 475 480
 Val Asp Met Ala Ser Asn Leu Met Leu Val Asp Glu His Leu Leu Trp
 485 490 495
 Leu Ala Gln Arg Glu Asp Lys Ala Cys Ser Arg Ile Val Gly Ala Leu
 500 505 510
 Glu Arg Ile Gly Gly Ala Ala Leu Ser Pro His Ala Gln His Ile Ser
 515 520 525
 Val Asn Ala Arg Asn Val Ala Leu Glu Ala Tyr Leu Ile Lys Pro His
 530 535 540
 Ser Tyr Val Gly Leu Thr Cys Thr Ala Phe Gln Arg Arg Glu Gly Gly
 545 550 555 560
 Val Pro Gly Thr Arg Pro Gly Ser Pro Gly Gln Asn Pro Pro Pro Glu
 565 570 575
 Pro Glu Pro Pro Ala Asp Gln Gln Leu Arg Phe Arg Cys Thr Thr Gly

Biosynthesis of Prostaglandins

	580	585	590
Arg Pro Asn Val Ser Leu Ser Ser Phe His Ile Lys Asn Ser Val Ala	595	600	605
Leu Ala Ser Ile Gln Leu Pro Pro Ser Leu Phe Ser Ser Leu Pro Ala	610	615	620
Ala Leu Ala Pro Pro Val Pro Pro Asp Cys Thr Leu Gln Leu Leu Val	625	630	635
Phe Arg Asn Gly Arg Leu Phe His Ser His Ser Asn Thr Ser Arg Pro	645	650	655
Gly Ala Ala Gly Pro Gly Lys Arg Arg Gly Val Ala Thr Pro Val Ile	660	665	670
Phe Ala Gly Thr Ser Gly Cys Gly Val Gly Asn Leu Thr Glu Pro Val	675	680	685
Ala Val Ser Leu Arg His Trp Ala Glu Gly Ala Glu Pro Val Ala Ala	690	695	700
Trp Trp Ser Gln Glu Gly Pro Gly Glu Ala Gly Gly Trp Thr Ser Glu	705	710	715
Gly Cys Gln Leu Arg Ser Ser Gln Pro Asn Val Ser Ala Leu His Cys	725	730	735
Gln His Leu Gly Asn Val Ala Val Leu Met Glu Leu Ser Ala Phe Pro	740	745	750
Arg Glu Val Gly Gly Ala Gly Ala Gly Leu His Pro Val Val Tyr Pro	755	760	765
Cys Thr Ala Leu Leu Leu Cys Leu Phe Ala Thr Ile Ile Thr Tyr	770	775	780
Ile Leu Asn His Ser Ser Ile Arg Val Ser Arg Lys Gly Trp His Met	785	790	795
Leu Leu Asn Leu Cys Phe His Ile Ala Met Thr Ser Ala Val Phe Ala	805	810	815
Gly Gly Ile Thr Leu Thr Asn Tyr Gln Met Val Cys Gln Ala Val Gly	820	825	830
Ile Thr Leu His Tyr Ser Ser Leu Ser Thr Leu Leu Trp Met Gly Val	835	840	845
Lys Ala Arg Val Leu His Lys Glu Leu Thr Trp Arg Ala Pro Pro Pro	850	855	860
Gln Glu Gly Asp Pro Ala Leu Pro Thr Pro Ser Pro Met Leu Arg Phe	865	870	875
Tyr Leu Ile Ala Gly Gly Ile Pro Leu Ile Ile Cys Gly Ile Thr Ala	885	890	895
Ala Val Asn Ile His Asn Tyr Arg Asp His Ser Pro Tyr Cys Trp Leu	900	905	910
Val Trp Arg Pro Ser Leu Gly Ala Phe Tyr Ile Pro Val Ala Leu Ile	915	920	925
Leu Leu Ile Thr Trp Ile Tyr Phe Leu Cys Ala Gly Leu Arg Leu Arg	930	935	940
Gly Pro Leu Ala Gln Asn Pro Lys Ala Gly Asn Ser Arg Ala Ser Leu	945	950	955
Glu Ala Gly Glu Leu Arg Gly Ser Thr Arg Leu Arg Gly Ser Gly	965	970	975
Pro Leu Leu Ser Asp Ser Gly Ser Leu Leu Ala Thr Gly Ser Ala Arg	980	985	990
Val Gly Thr Pro Gly Pro Pro Glu Asp Gly Asp Ser Leu Tyr Ser Pro	995	1000	1005
Gly Val Gln Leu Gly Ala Leu Val Thr Thr His Phe Leu Tyr Leu Ala	1010	1015	1020
Met Trp Ala Cys Gly Ala Leu Ala Val Ser Gln Arg Trp Leu Pro Arg	1025	1030	1035
Val Val Cys Ser Cys Leu Tyr Gly Val Ala Ala Ser Ala Leu Gly Leu	1045	1050	1055
Phe Val Phe Thr His His Cys Ala Arg Arg Arg Asp Val Arg Ala Ser	1060	1065	1070

Trp Arg Ala Cys Cys Pro Pro Ala Ser Pro Ala Ala Pro His Ala Pro
 1075 1080 1085
 Pro Arg Ala Leu Pro Ala Ala Glu Asp Gly Ser Pro Val Phe Gly
 1090 1095 1100
 Glu Gly Pro Pro Ser Leu Lys Ser Ser Pro Ser Gly Ser Ser Gly His
 1105 1110 1115 1120
 Pro Leu Ala Leu Gly Pro Cys Lys Leu Thr Asn Leu Gln Leu Ala Gln
 1125 1130 1135
 Ser Gln Val Cys Glu Ala Gly Ala Ala Gly Gly Glu Gly Glu Pro
 1140 1145 1150
 Glu Pro Ala Gly Thr Arg Gly Asn Leu Ala His Arg His Pro Asn Asn
 1155 1160 1165
 Val His His Gly Arg Arg Ala His Lys Ser Arg Ala Lys Gly His Arg
 1170 1175 1180
 Ala Gly Glu Ala Cys Gly Lys Asn Arg Leu Lys Ala Leu Arg Gly Gly
 1185 1190 1195 1200
 Ala Ala Gly Ala Leu Glu Leu Leu Ser Ser Glu Ser Gly Ser Leu His
 1205 1210 1215
 Asn Ser Pro Thr Asp Ser Tyr Leu Gly Ser Ser Arg Asn Ser Pro Gly
 1220 1225 1230
 Ala Gly Leu Gln Leu Glu Gly Glu Pro Met Leu Thr Pro Ser Glu Gly
 1235 1240 1245
 Ser Asp Thr Ser Ala Ala Pro Leu Ser Glu Ala Gly Arg Ala Gly Gln
 1250 1255 1260
 Arg Arg Ser Ala Ser Arg Asp Ser Leu Lys Gly Gly Gly Ala Leu Glu
 1265 1270 1275 1280
 Lys Glu Ser His Arg Arg Ser Tyr Pro Leu Asn Ala Ala Ser Leu Asn
 1285 1290 1295
 Gly Ala Pro Lys Gly Gly Lys Tyr Asp Asp Val Thr Leu Met Gly Ala
 1300 1305 1310
 Glu Val Ala Ser Gly Gly Cys Met Lys Thr Gly Leu Trp Lys Ser Glu
 1315 1320 1325
 Thr Thr Val
 1330

<210> 189
 <211> 529
 <212> PRT
 <213> Homo sapiens

<400> 189
 Met Ala Arg Phe Pro Lys Ala Asp Leu Ala Ala Gly Val Met Leu
 1 5 10 15
 Leu Cys His Phe Phe Thr Asp Gln Phe Gln Phe Ala Asp Gly Lys Pro
 20 25 30
 Gly Asp Gln Ile Leu Asp Trp Gln Tyr Gly Val Thr Gln Ala Phe Pro
 35 40 45
 His Thr Glu Glu Glu Val Glu Val Asp Ser His Ala Tyr Ser His Arg
 50 55 60
 Trp Lys Arg Asn Leu Asp Phe Leu Lys Ala Val Asp Thr Asn Arg Ala
 65 70 75 80
 Ser Val Gly Gln Asp Ser Pro Glu Pro Arg Ser Phe Thr Asp Leu Leu
 85 90 95
 Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp
 100 105 110
 His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ser Asp Ser Ala Ser
 115 120 125
 Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys
 130 135 140
 Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn
 145 150 155 160

Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Phe Leu Arg Glu Ile Thr
 165 170 175
 Val Ala Thr Gly Gly Phe Ile Tyr Thr Gly Glu Val Val His Arg Met
 180 185 190
 Leu Thr Ala Thr Gln Tyr Ile Ala Pro Leu Met Ala Asn Phe Asp Pro
 195 200 205
 Ser Val Ser Arg Asn Ser Thr Val Arg Tyr Phe Asp Asn Gly Thr Ala
 210 215 220
 Leu Val Val Gln Trp Asp His Val His Leu Gln Asp Asn Tyr Asn Leu
 225 230 235 240
 Gly Ser Phe Thr Phe Gln Ala Thr Leu Leu Met Asp Gly Arg Ile Ile
 245 250 255
 Phe Gly Tyr Lys Glu Ile Pro Val Leu Val Thr Gln Ile Ser Ser Thr
 260 265 270
 Asn His Pro Val Lys Val Gly Leu Ser Asp Ala Phe Val Val Val His
 275 280 285
 Arg Ile Gln Gln Ile Pro Asn Val Arg Arg Arg Thr Ile Tyr Glu Tyr
 290 295 300
 His Arg Val Glu Leu Gln Met Ser Lys Ile Thr Asn Ile Ser Ala Val
 305 310 315 320
 Glu Met Thr Pro Leu Pro Thr Cys Leu Gln Phe Asn Arg Cys Gly Pro
 325 330 335
 Cys Val Ser Ser Gln Ile Gly Phe Asn Cys Ser Trp Cys Ser Lys Leu
 340 345 350
 Gln Arg Cys Ser Ser Gly Phe Asp Arg His Arg Gln Asp Trp Val Asp
 355 360 365
 Ser Gly Cys Pro Glu Glu Ser Lys Glu Lys Met Cys Glu Asn Thr Glu
 370 375 380
 Pro Val Glu Thr Ser Ser Arg Thr Thr Thr Ile Gly Ala Thr Thr
 385 390 395 400
 Thr Gln Phe Arg Val Leu Thr Thr Arg Arg Ala Val Thr Ser Gln
 405 410 415
 Phe Pro Thr Ser Leu Pro Thr Glu Asp Asp Thr Lys Ile Ala Leu His
 420 425 430
 Leu Lys Asp Asn Gly Ala Ser Thr Asp Asp Ser Ala Ala Glu Lys Lys
 435 440 445
 Gly Gly Thr Leu His Ala Gly Leu Ile Val Gly Ile Leu Ile Leu Val
 450 455 460
 Leu Ile Val Ala Thr Ala Ile Leu Val Thr Val Tyr Met Tyr His His
 465 470 475 480
 Pro Thr Ser Ala Ala Ser Ile Phe Phe Ile Glu Arg Arg Pro Ser Arg
 485 490 495
 Trp Pro Ala Met Lys Phe Arg Arg Gly Ser Gly His Pro Ala Tyr Ala
 500 505 510
 Glu Val Glu Pro Val Gly Glu Lys Glu Gly Phe Ile Val Ser Glu Gln
 515 520 525
 Cys

<210> 190
 <211> 765
 <212> PRT
 <213> Mus musculus

<400> 190
 Met Leu Leu Arg Leu Leu Leu Ala Trp Val Ala Ala Val Pro Ala Leu
 1 5 10 15
 Gly Gln Val Pro Trp Thr Pro Glu Pro Arg Ala Ala Cys Gly Pro Ser
 20 25 30
 Ser Cys Tyr Ala Leu Phe Pro Arg Arg Arg Thr Phe Leu Glu Ala Trp
 35 40 45

Arg Ala Cys Arg Glu Leu Gly Gly Asn Leu Ala Thr Pro Arg Thr Pro
 50 55 60
 Glu Glu Ala Gln Arg Val Asp Ser Leu Val Gly Val Gly Pro Ala Asn
 65 70 75 80
 Gly Leu Leu Trp Ile Gly Leu Gln Arg Gln Ala Arg Gln Cys Gln Pro
 85 90 95
 Gln Arg Pro Leu Arg Gly Phe Ile Trp Thr Thr Gly Asp Gln Asp Thr
 100 105 110
 Ala Phe Thr Asn Trp Ala Gln Pro Ala Thr Glu Gly Pro Cys Pro Ala
 115 120 125
 Gln Arg Cys Ala Ala Leu Glu Ala Ser Gly Glu His Arg Trp Leu Glu
 130 135 140
 Gly Ser Cys Thr Leu Ala Val Asp Gly Tyr Leu Cys Gln Phe Gly Phe
 145 150 155 160
 Glu Gly Ala Cys Pro Ala Leu Pro Leu Glu Val Gly Gln Ala Gly Pro
 165 170 175
 Ala Val Tyr Thr Pro Phe Asn Leu Val Ser Ser Glu Phe Glu Trp
 180 185 190
 Leu Pro Phe Gly Ser Val Ala Ala Val Gln Cys Gln Ala Gly Arg Gly
 195 200 205
 Ala Ser Leu Leu Cys Val Lys Gln Pro Ser Gly Gly Val Gly Trp Ser
 210 215 220
 Gln Thr Gly Pro Leu Cys Pro Gly Thr Gly Cys Gly Pro Asp Asn Gly
 225 230 235 240
 Gly Cys Glu His Glu Cys Val Glu Glu Val Asp Gly Ala Val Ser Cys
 245 250 255
 Arg Cys Ser Glu Gly Phe Arg Leu Ala Ala Asp Gly His Ser Cys Glu
 260 265 270
 Asp Pro Cys Ala Gln Ala Pro Cys Glu Gln Gln Cys Glu Pro Gly Gly
 275 280 285
 Pro Gln Gly Tyr Ser Cys His Cys Arg Leu Gly Phe Arg Pro Ala Glu
 290 295 300
 Asp Asp Pro His Arg Cys Val Asp Thr Asp Glu Cys Gln Ile Ala Gly
 305 310 315 320
 Val Cys Gln Gln Met Cys Val Asn Tyr Val Gly Gly Phe Glu Cys Tyr
 325 330 335
 Cys Ser Glu Gly His Glu Leu Glu Ala Asp Gly Ile Ser Cys Ser Pro
 340 345 350
 Ala Gly Ala Met Gly Ala Gln Ala Ser Gln Asp Leu Arg Asp Glu Leu
 355 360 365
 Leu Asp Asp Gly Glu Glu Gly Glu Asp Glu Glu Glu Pro Trp Glu Asp
 370 375 380
 Phe Asp Gly Thr Trp Thr Glu Glu Gln Gly Ile Leu Trp Leu Ala Pro
 385 390 395 400
 Thr His Pro Pro Asp Phe Gly Leu Pro Tyr Arg Pro Asn Phe Pro Gln
 405 410 415
 Asp Gly Glu Pro Gln Arg Leu His Leu Glu Pro Thr Trp Pro Pro Pro
 420 425 430
 Leu Ser Ala Pro Arg Gly Pro Tyr His Ser Ser Val Val Ser Ala Thr
 435 440 445
 Arg Pro Met Val Ile Ser Ala Thr Arg Pro Thr Leu Pro Ser Ala His
 450 455 460
 Lys Thr Ser Val Ile Ser Ala Thr Arg Pro Pro Leu Ser Pro Val His
 465 470 475 480
 Pro Pro Ala Met Ala Pro Ala Thr Pro Pro Ala Val Phe Ser Glu His
 485 490 495
 Gln Ile Pro Lys Ile Lys Ala Asn Tyr Pro Asp Leu Pro Phe Gly His
 500 505 510
 Lys Pro Gly Ile Thr Ser Ala Thr His Pro Ala Arg Ser Pro Pro Tyr
 515 520 525
 Gln Pro Pro Ile Ile Ser Thr Asn Tyr Pro Gln Val Phe Pro Pro His

530	535	540
Gln Ala Pro Met Ser Pro Asp Thr His Thr Ile Thr Tyr Leu Pro Pro		
545	550	555
Val Pro Pro His Leu Asp Pro Gly Asp Thr Thr Ser Lys Ala His Gln		560
565	570	575
His Pro Leu Leu Pro Asp Ala Pro Gly Ile Arg Thr Gln Ala Pro Gln		
580	585	590
Leu Ser Val Ser Ala Leu Gln Pro Pro Leu Pro Thr Asn Ser Arg Ser		
595	600	605
Ser Val His Glu Thr Pro Val Pro Ala Ala Asn Gln Pro Pro Ala Phe		
610	615	620
Pro Ser Ser Pro Leu Pro Pro Gln Arg Pro Thr Asn Gln Thr Ser Ser		
625	630	635
Ile Ser Pro Thr His Ser Tyr Ser Arg Ala Pro Leu Val Pro Arg Glu		640
645	650	655
Gly Val Pro Ser Pro Lys Ser Val Pro Gln Leu Pro Ser Val Pro Ser		
660	665	670
Thr Ala Ala Pro Thr Ala Leu Ala Glu Ser Gly Leu Ala Gly Gln Ser		
675	680	685
Gln Arg Asp Asp Arg Trp Leu Leu Val Ala Leu Leu Val Pro Thr Cys		
690	695	700
Val Phe Leu Val Val Leu Leu Ala Leu Gly Ile Val Tyr Cys Thr Arg		
705	710	715
Cys Gly Ser His Ala Pro Asn Lys Arg Ile Thr Asp Cys Tyr Arg Trp		
725	730	735
Val Thr His Ala Gly Asn Lys Ser Ser Thr Glu Pro Met Pro Pro Arg		
740	745	750
Gly Ser Leu Thr Gly Val Gln Thr Cys Arg Thr Ser Val		
755	760	765

<210> 191
<211> 1329
<212> PRT
<213> Mus musculus

<400> 191		
Met Pro Val Pro Pro Ala Arg Leu Leu Leu Pro Leu Leu Pro Cys		
1	5	10
Leu Leu Leu Leu Ala Pro Gly Thr Arg Gly Ala Pro Gly Cys Pro Val		
20	25	30
Pro Ile Arg Gly Cys Lys Cys Ser Gly Glu Arg Pro Lys Gly Leu Ser		
35	40	45
Gly Gly Ala His Asn Pro Ala Arg Arg Arg Val Val Cys Gly Gly Gly		
50	55	60
Asp Leu Pro Glu Pro Pro Asp Pro Gly Leu Leu Pro Asn Gly Thr Ile		
65	70	75
Thr Leu Leu Leu Ser Asn Asn Lys Ile Thr Gly Leu Arg Asn Gly Ser		
85	90	95
Phe Leu Gly Leu Ser Leu Leu Glu Lys Leu Asp Leu Arg Ser Asn Val		
100	105	110
Ile Ser Thr Val Gln Pro Gly Ala Phe Leu Gly Leu Gly Glu Leu Lys		
115	120	125
Arg Leu Asp Leu Ser Asn Asn Arg Ile Gly Cys Leu Thr Ser Glu Thr		
130	135	140
Phe Gln Gly Leu Pro Arg Leu Leu Arg Leu Asn Ile Ser Gly Asn Ile		
145	150	155
Tyr Ser Ser Leu Gln Pro Gly Val Phe Asp Glu Leu Pro Ala Leu Lys		
165	170	175
Ile Val Asp Phe Gly Thr Glu Phe Leu Thr Cys Asp Cys Arg Leu Arg		
180	185	190
Trp Leu Leu Pro Trp Ala Arg Asn His Ser Leu Gln Leu Ser Glu Arg		

195	200	205
Thr Leu Cys Ala Tyr Pro Ser Ala Leu His Ala His Ala Leu Ser Ser		
210	215	220
Leu Gln Glu Ser Gln Leu Arg Cys Glu Gly Ala Leu Glu Leu His Thr		
225	230	235
His Tyr Leu Ile Pro Ser Leu Arg Gln Val Val Phe Gln Gly Asp Arg		
245	250	255
Leu Pro Phe Gln Cys Ser Ala Ser Tyr Leu Gly Asn Asp Thr Arg Ile		
260	265	270
His Trp Tyr His Asn Gly Ala Pro Met Glu Ser Asp Glu Gln Ala Gly		
275	280	285
Ile Val Leu Ala Glu Asn Leu Ile His Asp Cys Thr Phe Ile Thr Ser		
290	295	300
Glu Leu Thr Leu Ser His Ile Gly Val Trp Ala Ser Gly Glu Trp Glu		
305	310	315
Cys Ser Val Ser Thr Val Gln Gly Asn Thr Ser Lys Lys Val Glu Ile		
325	330	335
Val Val Leu Glu Thr Ser Ala Ser Tyr Cys Pro Ala Glu Arg Val Thr		
340	345	350
Asn Asn Arg Gly Asp Phe Arg Trp Pro Arg Thr Leu Ala Gly Ile Thr		
355	360	365
Ala Tyr Gln Ser Cys Leu Gln Tyr Pro Phe Thr Ser Val Pro Leu Ser		
370	375	380
Gly Gly Ala Pro Gly Thr Arg Ala Ser Arg Arg Cys Asp Arg Ala Gly		
385	390	395
Arg Trp Glu Pro Gly Asp Tyr Ser His Cys Leu Tyr Thr Asn Asp Ile		
405	410	415
Thr Arg Val Leu Tyr Thr Phe Val Leu Met Pro Ile Asn Ala Ser Asn		
420	425	430
Ala Leu Thr Leu Ala His Gln Leu Arg Val Tyr Thr Ala Glu Ala Ala		
435	440	445
Ser Phe Ser Asp Met Met Asp Val Val Tyr Val Ala Gln Met Ile Gln		
450	455	460
Lys Phe Leu Gly Tyr Val Asp Gln Ile Lys Glu Leu Val Glu Val Met		
465	470	475
Val Asp Met Ala Ser Asn Leu Met Leu Val Asp Glu His Leu Leu Trp		
485	490	495
Leu Ala Gln Arg Glu Asp Lys Ala Cys Ser Gly Ile Val Gly Ala Leu		
500	505	510
Glu Arg Ile Gly Gly Ala Ala Leu Ser Pro His Ala Gln His Ile Ser		
515	520	525
Val Asn Ser Arg Asn Val Ala Leu Glu Ala Tyr Leu Ile Lys Pro His		
530	535	540
Ser Tyr Val Gly Leu Thr Cys Thr Ala Phe Gln Arg Arg Glu Val Gly		
545	550	555
Val Ser Gly Ala Gln Pro Ser Ser Val Gly Gln Asp Ala Pro Val Glu		
565	570	575
Pro Glu Pro Leu Ala Asp Gln Gln Leu Arg Phe Arg Cys Thr Thr Gly		
580	585	590
Arg Pro Asn Ile Ser Leu Ser Ser Phe His Ile Lys Asn Ser Val Ala		
595	600	605
Leu Ala Ser Ile Gln Leu Pro Pro Ser Leu Phe Ser Thr Leu Pro Ala		
610	615	620
Ala Leu Ala Pro Pro Val Pro Pro Asp Cys Thr Leu Gln Leu Val		
625	630	635
Phe Arg Asn Gly Arg Leu Phe Arg Ser His Gly Asn Asn Thr Ser Arg		
645	650	655
Pro Gly Ala Ala Gly Pro Gly Lys Arg Arg Gly Val Ala Thr Pro Val		
660	665	670
Ile Phe Ala Gly Thr Ser Gly Cys Gly Val Gly Asn Leu Thr Glu Pro		
675	680	685

Val Ala Val Ser Leu Arg His Trp Ala Glu Gly Ala Asp Pro Met Ala
 690 695 700
 Ala Trp Trp Asn Gln Asp Gly Pro Gly Gly Trp Ser Ser Glu Gly Cys
 705 710 715 720
 Arg Leu Arg Tyr Ser Gln Pro Asn Val Ser Ser Leu Tyr Cys Gln His
 725 730 735
 Leu Gly Asn Val Ala Val Leu Met Glu Leu Asn Ala Phe Pro Arg Glu
 740 745 750
 Ala Gly Gly Ser Gly Ala Gly Leu His Pro Val Val Tyr Pro Cys Thr
 755 760 765
 Ala Leu Leu Leu Cys Leu Phe Ser Thr Ile Ile Thr Tyr Ile Leu
 770 775 780
 Asn His Ser Ser Ile His Val Ser Arg Lys Gly Trp His Met Leu Leu
 785 790 795 800
 Asn Leu Cys Phe His Met Ala Met Thr Ser Ala Val Phe Val Gly Gly
 805 810 815
 Val Thr Leu Thr Asn Tyr Gln Met Val Cys Gln Ala Val Gly Ile Thr
 820 825 830
 Leu His Tyr Ser Ser Leu Ser Ser Leu Leu Trp Met Gly Val Lys Ala
 835 840 845
 Arg Val Leu His Lys Glu Leu Ser Trp Arg Ala Pro Pro Leu Glu Glu
 850 855 860
 Gly Glu Ala Ala Pro Pro Gly Pro Arg Pro Met Leu Arg Phe Tyr Leu
 865 870 875 880
 Ile Ala Gly Gly Ile Pro Leu Ile Ile Cys Gly Ile Thr Ala Ala Val
 885 890 895
 Asn Ile His Asn Tyr Arg Asp His Ser Pro Tyr Cys Trp Leu Val Trp
 900 905 910
 Arg Pro Ser Leu Gly Ala Phe Tyr Ile Pro Val Ala Leu Ile Leu Pro
 915 920 925
 Ile Thr Trp Ile Tyr Phe Leu Cys Ala Gly Leu His Leu Arg Ser His
 930 935 940
 Val Ala Gln Asn Pro Lys Gln Gly Asn Arg Ile Ser Leu Glu Pro Gly
 945 950 955 960
 Glu Glu Leu Arg Gly Ser Thr Arg Leu Arg Ser Ser Gly Val Leu Leu
 965 970 975
 Asn Asp Ser Gly Ser Leu Leu Ala Thr Val Ser Ala Gly Val Gly Thr
 980 985 990
 Pro Ala Pro Pro Glu Asp Gly Asp Gly Val Tyr Ser Pro Gly Val Gln
 995 1000 1005
 Leu Gly Ala Leu Met Thr Thr His Phe Leu Tyr Leu Ala Met Trp Ala
 1010 1015 1020
 Cys Gly Ala Leu Ala Val Ser Gln Arg Trp Leu Pro Arg Val Val Cys
 1025 1030 1035 1040
 Ser Cys Leu Tyr Gly Val Ala Ala Ser Ala Leu Gly Leu Phe Val Phe
 1045 1050 1055
 Thr His His Cys Ala Arg Arg Arg Asp Val Arg Ala Ser Trp Arg Ala
 1060 1065 1070
 Cys Cys Pro Pro Ala Ser Pro Ser Ala Ser His Val Pro Ala Arg Ala
 1075 1080 1085
 Leu Pro Thr Ala Thr Glu Asp Gly Ser Pro Val Leu Gly Glu Gly Pro
 1090 1095 1100
 Ala Ser Leu Lys Ser Ser Pro Ser Gly Ser Ser Gly Arg Ala Pro Pro
 1105 1110 1115 1120
 Pro Pro Cys Lys Leu Thr Asn Leu Gln Val Ala Gln Ser Gln Val Cys
 1125 1130 1135
 Glu Ala Ser Val Ala Ala Arg Gly Asp Gly Glu Pro Glu Pro Thr Gly
 1140 1145 1150
 Ser Arg Gly Ser Leu Ala Pro Arg His His Asn Asn Leu His His Gly
 1155 1160 1165
 Arg Arg Val His Lys Ser Arg Ala Lys Gly His Arg Ala Gly Glu Thr

1170	1175	1180	
Gly	Gly Lys Ser Arg Leu Lys Ala Leu Arg Ala	Gly Thr Ser Pro Gly	
1185	1190	1195	1200
Ala	Pro Glu Leu Leu Ser Ser Glu Ser Gly Ser	Leu His Asn Ser Pro	
	1205	1210	1215
Ser	Asp Ser Tyr Pro Gly Ser Ser Arg Asn Ser Pro	Gly Asp Gly Leu	
	1220	1225	1230
Pro	Leu Glu Gly Glu Pro Met Leu Thr Pro Ser Glu	Gly Ser Asp Thr	
	1235	1240	1245
Ser	Ala Ala Pro Ile Ala Glu Thr Gly Arg Pro	Gly Gln Arg Arg Ser	
	1250	1255	1260
Ala	Ser Arg Asp Asn Leu Lys Gly Ser Gly Ser	Ala Leu Glu Arg Glu	
1265	1270	1275	1280
Ser	Lys Arg Arg Ser Tyr Pro Leu Asn Thr Thr	Ser Leu Asn Gly Ala	
	1285	1290	1295
Pro	Lys Gly Gly Lys Tyr Glu Asp Ala Ser Val	Thr Gly Ala Glu Ala	
	1300	1305	1310
Ile	Ala Gly Gly Ser Met Lys Thr Gly Leu Trp	Lys Ser Glu Thr Thr	
	1315	1320	1325
Val			

Val

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<210> 192  
<211> 500  
<212> PRT  
<213> Mus musculus
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<400> 192
 Met Arg Ala Gln Leu Trp Leu Leu Gln Leu Leu Leu Leu Arg Gly Ala
 1 5 10 15
 Ala Arg Ala Leu Ser Pro Ala Thr Pro Ala Gly His Asn Glu Gly Gln
 20 25 30
 Asp Ser Ala Trp Thr Ala Lys Arg Thr Arg Gln Gly Trp Ser Arg Arg
 35 40 45
 Pro Arg Glu Ser Pro Ala Gln Val Leu Lys Pro Gly Lys Thr Gln Leu
 50 55 60
 Ser Gln Asp Leu Gly Gly Ser Leu Ala Ile Asp Thr Leu Pro Asp
 65 70 75 80
 Asn Arg Thr Arg Val Val Glu Asp Asn His Asn Tyr Tyr Val Ser Arg
 85 90 95
 Val Tyr Gly Pro Gly Glu Lys Gln Ser Gln Asp Leu Trp Val Asp Leu
 100 105 110
 Ala Val Ala Asn Arg Ser His Val Lys Ile His Arg Ile Leu Ser Ser
 115 120 125
 Ser His Arg Gln Ala Ser Arg Val Val Leu Ser Phe Asp Phe Pro Phe
 130 135 140
 Tyr Gly His Pro Leu Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile
 145 150 155 160
 Phe Met Gly Asp Met Leu His Arg Met Leu Thr Ala Thr Gln Tyr Val
 165 170 175
 Ala Pro Leu Met Ala Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr
 180 185 190
 Val Ala Tyr Phe Asp Asn Gly Thr Val Phe Val Val Gln Trp Asp His
 195 200 205
 Val Tyr Leu Gln Asp Arg Glu Asp Arg Gly Ser Phe Thr Phe Gln Ala
 210 215 220
 Ala Leu His Arg Asp Gly Arg Ile Val Phe Gly Tyr Lys Glu Ile Pro
 225 230 235 240
 Met Ala Val Leu Asp Ile Ser Ser Ala Gln His Pro Val Lys Ala Gly
 245 250 255
 Leu Ser Asp Ala Phe Met Ile Leu Asn Ser Ser Pro Glu Val Pro Glu

260	265	270
Ser Gln Arg Arg Thr Ile Phe Glu Tyr His Arg Val Glu Leu Asp Ser		
275	280	285
Ser Lys Ile Thr Thr Ser Ala Val Glu Phe Thr Pro Leu Pro Thr		
290	295	300
Cys Leu Gln His Gln Ser Cys Asp Thr Cys Val Ser Ser Asn Leu Thr		
305	310	315
Phe Asn Cys Ser Trp Cys His Val Leu Gln Arg Cys Ser Ser Gly Phe		320
325	330	335
Asp Arg Tyr Arg Gln Glu Trp Leu Thr Tyr Gly Cys Ala Gln Glu Ala		
340	345	350
Glu Gly Lys Thr Cys Glu Asp Phe Gln Asp Asp Ser His Tyr Ser Ala		
355	360	365
Ser Pro Asp Ser Ser Phe Ser Pro Phe Asn Gly Asp Ser Thr Thr Ser		
370	375	380
Ser Ser Leu Phe Ile Asp Ser Leu Thr Thr Glu Asp Asp Thr Lys Leu		
385	390	395
Asn Pro Tyr Ala Glu Gly Asp Gly Leu Pro Asp His Ser Ser Pro Lys		
405	410	415
Ser Lys Gly Pro Pro Val His Leu Gly Thr Ile Val Gly Ile Val Leu		
420	425	430
Ala Val Leu Leu Val Ala Ala Ile Ile Leu Ala Gly Ile Tyr Ile Ser		
435	440	445
Gly His Pro Asn Ser Asn Ala Ala Leu Phe Phe Ile Glu Arg Arg Pro		
450	455	460
His His Trp Pro Ala Met Lys Phe His Asn His Pro Asn His Ser Thr		
465	470	475
Tyr Thr Glu Val Glu Pro Ser Gly His Glu Lys Glu Gly Phe Val Glu		480
485	490	495
Ala Glu Gln Cys		
500		
<210> 193		
<211> 530		
<212> PRT		
<213> Mus musculus		
<400> 193		
Met Ala Arg Phe Arg Arg Ala Asp Leu Ala Ala Gly Val Met Leu		
1	5	10
Leu Cys His Phe Leu Thr Asp Arg Phe His Phe Ala His Gly Glu Pro		
20	25	30
Gly His His Thr Asn Asp Trp Ile Tyr Glu Val Thr Asn Ala Phe Pro		
35	40	45
Trp Asn Glu Glu Gly Val Glu Val Asp Ser Gln Ala Tyr Asn His Arg		
50	55	60
Trp Lys Arg Asn Val Asp Pro Phe Lys Ala Val Asp Thr Asn Arg Ala		
65	70	75
Ser Met Gly Gln Ala Ser Pro Glu Ser Lys Gly Phe Thr Asp Leu Leu		
85	90	95
Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp		
100	105	110
His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ala Asp Ser Ala Ser		
115	120	125
Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys		
130	135	140
Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn		
145	150	155
Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Phe Leu Asn Glu Val Thr		160
165	170	175
Val Ala Thr Gly Gly Phe Ile Tyr Thr Gly Glu Val Val His Arg Met		

180	185	190
Leu Thr Ala Thr Gln Tyr Ile Ala Pro	Leu Met Ala Asn Phe Asp Pro	
195	200	205
Ser Val Ser Arg Asn Ser Thr Val Arg Tyr Phe Asp Asn Gly Thr Ala		
210	215	220
Leu Val Val Gln Trp Asp His Val His Leu Gln Asp Asn Tyr Asn Leu		
225	230	235
Gly Ser Phe Thr Phe Gln Ala Thr Leu Leu Met Asp Gly Arg Ile Ile		
240	245	250
Phe Gly Tyr Lys Glu Ile Pro Val Leu Val Thr Gln Ile Ser Ser Thr		
260	265	270
Asn His Pro Val Lys Val Gly Leu Ser Asp Ala Phe Val Val Val His		
275	280	285
Arg Ile Gln Gln Ile Pro Asn Val Arg Arg Arg Thr Ile Tyr Glu Tyr		
290	295	300
His Arg Val Glu Leu Gln Met Ser Lys Ile Thr Asn Ile Ser Ala Val		
305	310	315
Glu Met Thr Pro Leu Pro Thr Cys Leu Gln Phe Asn Gly Cys Gly Pro		
320	325	330
Cys Val Ser Ser Gln Ile Gly Phe Asn Cys Ser Trp Cys Ser Lys Leu		
340	345	350
Gln Arg Cys Ser Ser Gly Phe Asp Arg His Arg Gln Asp Trp Val Asp		
355	360	365
Ser Gly Cys Pro Glu Glu Val Gln Ser Lys Glu Lys Met Cys Glu Lys		
370	375	380
Thr Glu Pro Gly Glu Thr Ser Gln Thr Thr Thr Ser His Thr Thr		
385	390	395
400		
Thr Met Gln Phe Arg Val Leu Thr Thr Thr Arg Arg Ala Val Thr Ser		
405	410	415
Gln Met Pro Thr Ser Leu Pro Thr Glu Asp Asp Thr Lys Ile Ala Leu		
420	425	430
His Leu Lys Asp Ser Gly Ala Ser Thr Asp Asp Ser Ala Ala Glu Lys		
435	440	445
Lys Gly Gly Thr Leu His Ala Gly Leu Ile Val Gly Ile Leu Ile Leu		
450	455	460
Val Leu Ile Ile Ala Ala Ala Ile Leu Val Thr Val Tyr Met Tyr His		
465	470	475
480		
His Pro Thr Ser Ala Ala Ser Ile Phe Phe Ile Glu Arg Arg Pro Ser		
485	490	495
Arg Trp Pro Ala Met Lys Phe Arg Arg Gly Ser Gly His Pro Ala Tyr		
500	505	510
Ala Glu Val Glu Pro Val Gly Glu Lys Glu Gly Phe Ile Val Ser Glu		
515	520	525
Gln Cys		
530		

<210> 194

<211> 562

<212> PRT

<213> Mus musculus

<400> 194

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Ala Ala Leu Val Leu Val Cys Ala Gly His Gly Gly Arg Arg Glu Asp		
20	25	30
Gly Gly Pro Ala Cys Tyr Gly Gly Phe Asp Leu Tyr Phe Ile Leu Asp		
35	40	45
Lys Ser Gly Ser Val Leu His His Trp Asn Glu Ile Tyr Tyr Phe Val		
50	55	60
Glu Gln Leu Ala His Arg Phe Ile Ser Pro Gln Leu Arg Met Ser Phe		

65	70	75	80
Ile Val Phe Ser Thr Arg Gly Thr Thr		Leu Met Lys Leu Thr Glu Asp	
85		90	95
Arg Glu Gln Ile Arg Gln Gly Leu Glu	Glu Leu Gln Lys Val Leu Pro		
100	105	110	
Gly Gly Asp Thr Tyr Met His Glu Gly Phe	Glu Arg Ala Ser Glu Gln		
115	120	125	
Ile Tyr Tyr Glu Asn Ser Gln Gly Tyr	Arg Thr Ala Ser Val Ile Ile		
130	135	140	
Ala Leu Thr Asp Gly Glu Leu His Glu Asp	Leu Phe Phe Tyr Ser Glu		
145	150	155	160
Arg Glu Ala Asn Arg Ser Arg Asp	Leu Gly Ala Ile Val Tyr Cys Val		
165	170	175	
Gly Val Lys Asp Phe Asn Glu Thr Gln	Leu Ala Arg Ile Ala Asp Ser		
180	185	190	
Lys Asp His Val Phe Pro Val Asn Asp	Gly Phe Gln Ala Leu Gln Gly		
195	200	205	
Ile Ile His Ser Ile Leu Lys Ser Cys	Ile Glu Ile Leu Ala Ala		
210	215	220	
Glu Pro Ser Thr Ile Cys Ala Gly Glu Ser	Phe Gln Val Val Val Arg		
225	230	235	240
Gly Asn Gly Phe Arg His Ala Arg Asn Val	Asp Arg Val Leu Cys Ser		
245	250	255	
Phe Lys Ile Asn Asp Ser Val Thr	Leu Asn Glu Lys Pro Phe Ala Val		
260	265	270	
Glu Asp Thr Tyr Leu Leu Cys Pro Ala Pro	Ile Leu Lys Glu Val Gly		
275	280	285	
Met Lys Ala Ala Leu Gln Val Ser Met Asn Asp	Gly Leu Ser Phe Ile		
290	295	300	
Ser Ser Ser Val Ile Ile Thr Thr His Cys	Ser Asp Gly Ser Ile		
305	310	315	320
Leu Ala Ile Ala Leu Leu Val Leu Phe	Leu Leu Ala Leu Ala Leu		
325	330	335	
Leu Trp Trp Phe Trp Pro Leu Cys Cys	Thr Val Ile Ile Lys Glu Val		
340	345	350	
Pro Pro Pro Pro Val Glu Glu Ser	Glu Glu Asp Asp Gly Leu		
355	360	365	
Pro Lys Lys Lys Trp Pro Thr Val Asp Ala	Ser Tyr Tyr Gly Gly Arg		
370	375	380	
Gly Val Gly Gly Ile Lys Arg Met Glu Val	Arg Trp Gly Glu Lys Gly		
385	390	395	400
Ser Thr Glu Glu Gly Ala Lys Leu Glu	Lys Ala Lys Asn Ala Arg Val		
405	410	415	
Lys Met Pro Glu Gln Glu Tyr Glu Phe	Pro Glu Pro Arg Asn Leu Asn		
420	425	430	
Asn Asn Met Arg Arg Pro Ser Ser	Pro Arg Lys Trp Tyr Ser Pro Ile		
435	440	445	
Lys Gly Lys Leu Asp Ala Leu Trp Val	Leu Leu Arg Lys Gly Tyr Asp		
450	455	460	
Arg Val Ser Val Met Arg Pro Gln Pro	Gly Asp Thr Gly Arg Cys Ile		
465	470	475	480
Asn Phe Thr Arg Val Lys Asn Ser Gln	Pro Ala Lys Tyr Pro Leu Asn		
485	490	495	
Asn Thr Tyr His Pro Ser Ser Pro	Pro Ala Pro Ile Tyr Thr Pro		
500	505	510	
Pro Pro Pro Ala Pro His Cys Pro	Pro Pro Pro Ala Pro Ser Ala Pro Thr		
515	520	525	
Pro Pro Ile Pro Ser Pro Pro Ser	Thr Leu Pro Pro Pro Pro Gln Ala		
530	535	540	
Pro Pro Pro Asn Arg Ala Pro Pro Pro	Ser Arg Pro Pro Pro Arg Pro		
545	550	555	560

Ser Val

<210> 195
<211> 2565
<212> DNA
<213> Homo sapiens

<400> 195

tcgcgatgct gctgcgcctg ttgctggcct gggcgccgc agggcccaca ctgggccagg 60
acccctggc tgcgtgagccc cgtgcgcct gcggccccag cagctgctac gctctcttcc 120
cacggcccg cacccctcctg gaggcctggc gggctgccc cgagctgggg ggcgacctgg 180
ccactcctcg gaccccccag gaggcccagc gtgtggacag cctggtggt gcgggcccag 240
ccagccgct gctgtggatc gggctgcagc ggcaaggcccg gcaatgcacag ctgcagcgcc 300
caactgcggg cttcacgtgg accacagggg accaggacac ggcttcacc aactgggccc 360
agccagaactc tgaggggccc tgccggcc agcgtgtgt ggccctggag gcaagtggcg 420
agcaccgtg gctggggggc tgcgtcacgc tggtgtcga cggctacctg tgccagttt 480
gcttcgaggg cgccctgccc ggcgtcaag atgaggccgg ccaggccggc ccagccgtgt 540
ataccacgccc ctccacacag gtctccacag agtttgatgt gctgccttc ggctctgtgg 600
ccgctgtgca gtgccaggct ggcaggggag cctctctgt ctgcgtgaag cagcctgagg 660
gaggtgtggg ctggtcacgg gctggggccc tgcgtctggg gactggctgc agccctgaca 720
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caactgcctt tgccaccagg cctcctgtga tccctgccc acacccagct ttgtccctgt 1440
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aaatgggttcaacccaaaaaaa aaaaaaaaaaaa aaaaaaaa 2565

<210> 196
<211> 757
<212> PRT
<213> Homo sapiens

<400> 196

Met Leu Leu Arg Leu Leu Ala Trp Ala Ala Ala Gly Pro Thr Leu
1 5 10 15

Gly Gln Asp Pro Trp Ala Ala Glu Pro Arg Ala Ala Cys Gly Pro Ser
 20 25 30
 Ser Cys Tyr Ala Leu Phe Pro Arg Arg Arg Thr Phe Leu Glu Ala Trp
 35 40 45
 Arg Ala Cys Arg Glu Leu Gly Gly Asp Leu Ala Thr Pro Arg Thr Pro
 50 55 60
 Glu Glu Ala Gln Arg Val Asp Ser Leu Val Gly Ala Gly Pro Ala Ser
 65 70 75 80
 Arg Leu Leu Trp Ile Gly Leu Gln Arg Gln Ala Arg Gln Cys Gln Leu
 85 90 95
 Gln Arg Pro Leu Arg Gly Phe Thr Trp Thr Gly Asp Gln Asp Thr
 100 105 110
 Ala Phe Thr Asn Trp Ala Gln Pro Ala Ser Gly Gly Pro Cys Pro Ala
 115 120 125
 Gln Arg Cys Val Ala Leu Glu Ala Ser Gly Glu His Arg Trp Leu Glu
 130 135 140
 Gly Ser Cys Thr Leu Ala Val Asp Gly Tyr Leu Cys Gln Phe Gly Phe
 145 150 155 160
 Glu Gly Ala Cys Pro Ala Leu Gln Asp Glu Ala Gly Gln Ala Gly Pro
 165 170 175
 Ala Val Tyr Thr Pro Phe His Leu Val Ser Thr Glu Phe Glu Trp
 180 185 190
 Leu Pro Phe Gly Ser Val Ala Ala Val Gln Cys Gln Ala Gly Arg Gly
 195 200 205
 Ala Ser Leu Leu Cys Val Lys Gln Pro Glu Gly Val Gly Trp Ser
 210 215 220
 Arg Ala Gly Pro Leu Cys Leu Gly Thr Gly Cys Ser Pro Asp Asn Gly
 225 230 235 240
 Gly Cys Glu His Glu Cys Val Glu Glu Val Asp Gly His Val Ser Cys
 245 250 255
 Arg Cys Thr Glu Gly Phe Arg Leu Ala Ala Asp Gly Arg Ser Cys Glu
 260 265 270
 Asp Pro Cys Ala Gln Ala Pro Cys Glu Gln Gln Cys Glu Pro Gly Gly
 275 280 285
 Pro Gln Gly Tyr Ser Cys His Cys Arg Leu Gly Phe Arg Pro Ala Glu
 290 295 300
 Asp Asp Pro His Arg Cys Val Asp Thr Asp Glu Cys Gln Ile Ala Gly
 305 310 315 320
 Val Cys Gln Gln Met Cys Val Asn Tyr Val Gly Gly Phe Glu Cys Tyr
 325 330 335
 Cys Ser Glu Gly His Glu Leu Glu Ala Asp Gly Ile Ser Cys Ser Pro
 340 345 350
 Ala Gly Ala Met Gly Ala Gln Ala Ser Gln Asp Leu Gly Asp Glu Leu
 355 360 365
 Leu Asp Asp Gly Glu Asp Glu Glu Asp Glu Asp Glu Ala Trp Lys Ala
 370 375 380
 Phe Asn Gly Gly Trp Thr Glu Met Pro Gly Ile Leu Trp Met Glu Pro
 385 390 395 400
 Thr Gln Pro Pro Asp Phe Ala Leu Ala Tyr Arg Pro Ser Phe Pro Glu
 405 410 415
 Asp Arg Glu Pro Gln Ile Pro Tyr Pro Glu Pro Thr Trp Pro Pro Pro
 420 425 430
 Leu Ser Ala Pro Arg Val Pro Tyr His Ser Ser Val Leu Ser Val Thr
 435 440 445
 Arg Pro Val Val Val Ser Ala Thr His Pro Thr Leu Pro Ser Ala His
 450 455 460
 Gln Pro Pro Val Ile Pro Ala Thr His Pro Ala Leu Ser Arg Asp His
 465 470 475 480
 Gln Ile Pro Val Ile Ala Ala Asn Tyr Pro Asp Leu Pro Ser Ala Tyr
 485 490 495
 Gln Pro Gly Ile Leu Ser Val Ser His Ser Ala Gln Pro Pro Ala His

500	505	510
Gln Pro Pro Met Ile Ser Thr Lys	Tyr Pro Glu Leu Phe	Pro Ala His
515	520	525
Gln Ser Pro Met Phe Pro Asp	Thr Arg Val Ala Gly	Thr Gln Thr Thr
530	535	540
Thr His Leu Pro Gly Ile Pro Pro Asn His	Ala Pro Leu Val Thr	Thr
545	550	555
Leu Gly Ala Gln Leu Pro Pro Gln Ala Pro Asp	Ala Leu Val Leu Arg	560
565	570	575
Thr Gln Ala Thr Gln Leu Pro Ile Ile	Pro Thr Ala Gln Pro Ser	Leu
580	585	590
Thr Thr Thr Ser Arg Ser Pro Val Ser Pro Ala His	Gln Ile Ser Val	
595	600	605
Pro Ala Ala Thr Gln Pro Ala Ala Leu Pro Thr	Leu Leu Pro Ser Gln	
610	615	620
Ser Pro Thr Asn Gln Thr Ser Pro Ile Ser Pro Thr	His Pro His Ser	
625	630	640
Lys Ala Pro Gln Ile Pro Arg Glu Asp	Gly Pro Ser Pro Lys	Leu Ala
645	650	655
Leu Trp Leu Pro Ser Pro Ala Pro Thr Ala Ala Pro	Thr Ala Leu Gly	
660	665	670
Glu Ala Gly Leu Ala Glu His Ser Gln Arg Asp	Asp Arg Trp Leu Leu	
675	680	685
Val Ala Leu Leu Val Pro Thr Cys Val Phe Leu Val	Val Leu Leu Ala	
690	695	700
Leu Gly Ile Val Tyr Cys Thr Arg Cys Gly Pro His	Ala Pro Asn Lys	
705	710	720
Arg Ile Thr Asp Cys Tyr Arg Trp Val Ile His Ala	Gly Ser Lys Ser	
725	730	735
Pro Thr Glu Pro Met Pro Pro Arg Gly Ser Leu Thr	Gly Val Gln Thr	
740	745	750
Cys Arg Thr Ser Val		
755		

<210> 197
 <211> 2973
 <212> DNA
 <213> Homo sapiens

<400> 197

gccccttgcg	cctccttgcc	cggccgcgcc	cagccccggcg	tcccggacag	cgcaaggggag	60
gatcccccgcg	cagtgaccccg	ggagccacca	cagactctgg	gaggctcgcc	ggctggagca	120
gcaggcagct	cccccgcagct	ccggcgctt	ccaggcagct	ctctgagccg	tgccagaggc	180
ccggcccgcc	attccccagcc	ccgagccatg	atgaagactt	tgtccagcgg	gaactgcacg	240
ctcagtgtgc	ccgccccaaa	ctcataccgc	atgtgggtgc	tgggtgcctc	tcgggtggc	300
aagagctcca	tcgtgtctcg	cttcctcaat	ggccgctttg	aggaccagta	cacacccacc	360
atcgaggact	tccaccgtaa	ggtataacaac	atccggccgc	acatgtacca	gctcgacatc	420
ctggataacct	ctggcaacca	cccctcccc	gccccgcgc	ggctgtccat	cctcacaggg	480
gatgtttca	tcctgggtt	cagcctggat	aaccggagt	ccttcgtatga	ggtcaagcgc	540
cttcagaagc	agatcctgga	ggtcaagtcc	tgcttgaaga	acaagaccaa	ggaggcggcg	600
gagctgccc	tggtcatctg	tggcaacaag	aacgaccacg	gcgagctgt	ccgcagggtg	660
cccaccaccg	aggccgagct	gctgggtgtcg	ggcgcacgaga	actgcgccta	cttcgagggtg	720
tcggccaaga	agaacaccaa	cgtggacgag	atgttctacg	tgcttcttag	catggccaag	780
ctgccacacg	agatgagcccc	cgcctgcatt	cgcaagatct	cggtgacgccc		840
ttccacccca	ggcccttctg	catgcggccg	gtcaaggaga	tggacgccta	tggcatggtc	900
tcggccctcg	cccgccgccc	cagcgtcaac	atgtacacct	agtatcataa	ggccaagggtc	960
cttcggaaag	gccaggcccc	tgagaggac	aagtgcacca	tccagtggac	gagggtatgt	1020
ggggcggggc	ttggccagtg	ccttcaggga	ggtggcccca	gatgcccact	gtgcgcatct	1080
ccccaccgag	gccccggcag	cagtcttgtt	cacagacctt	aggcaccaga	ctggaggccc	1140
ccgggcgtg	gcctccgcac	attcgtctgc	cttctcacag	cttcctgtag	tccgcttg	1200
cacagctct	tggtggttgc	atctcctct	tggaggaca	catctctgca	gcctcaagag	1260

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cacagaaggc	cagatgagaa	aggctccctc	tctcctggca	taacaccagg	cttgggttgg	1440
gtggcagctg	ggagaacttc	tctcccagcc	ctgcaactct	tacgctctgg	ttcagctgcc	1500
tctgcacccc	ctccccacccc	cagcacacac	acaagttggc	ccccagctgc	gcctgacatt	1560
gagccagtgg	actctgtgtc	tgaagggggc	gtggccacac	ctcctagacc	acgcccacca	1620
cttagacac	gccacacctc	tgaccgcgtt	cctcagccct	ctctccctagg	tccctccgccc	1680
cgacagtgt	gttttgtgt	ggttgcaggt	gttttgcgtt	ctatgtatag	atgagaatgt	1740
gaaatcattg	tactgtaaaa	gcctagtgtac	tccctcccttgc	gcccaggccct	caccaggatc	1800
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cctgtttgca	gctagacatt	gacctccgccc	attgagctcc	acggtttaca	gacaattgc	1920
caagcgtggg	gtgggcaggg	caggactgt	tttttttaat	gctccatt	cacagaggat	1980
accaccgaga	ctcggagggg	acacgatgag	caccaggccc	caccccttgc	ccctagcaaa	2040
ttcagggtac	agtcacccact	agaaccaggc	tgccctctac	tgtgtcgtt	cctcaagcat	2100
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gtccctggcc	ctgccccccc	ctgtgtcccc	accaccttct	gcacacacag	cggtggggag	2220
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<210> 198
<211> 266
<212> PRT
<213> *Homo sapiens*

<400> 198

Met	Met	Lys	Thr	Leu	Ser	Ser	Gly	Asn	Cys	Thr	Leu	Ser	Val	Pro	Ala
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Lys	Asn	Ser	Tyr	Arg	Met	Val	Val	Leu	Gly	Ala	Ser	Arg	Val	Gly	Lys
			20					25					30		
Ser	Ser	Ile	Val	Ser	Arg	Phe	Leu	Asn	Gly	Arg	Phe	Glu	Asp	Gln	Tyr
		35				40					45				
Thr	Pro	Thr	Ile	Glu	Asp	Phe	His	Arg	Lys	Val	Tyr	Asn	Ile	Arg	Gly
		50				55				60					
Asp	Met	Tyr	Gln	Leu	Asp	Ile	Leu	Asp	Thr	Ser	Gly	Asn	His	Pro	Phe
65				70					75				80		
Pro	Ala	Met	Arg	Arg	Leu	Ser	Ile	Leu	Thr	Gly	Asp	Val	Phe	Ile	Leu
			85					90					95		
Val	Phe	Ser	Leu	Asp	Asn	Arg	Glu	Ser	Phe	Asp	Glu	Val	Lys	Arg	Leu
			100					105					110		
Gln	Lys	Gln	Ile	Leu	Glu	Val	Lys	Ser	Cys	Leu	Lys	Asn	Lys	Thr	Lys
		115				120					125				
Glu	Ala	Ala	Glu	Leu	Pro	Met	Val	Ile	Cys	Gly	Asn	Lys	Asn	Asp	His
		130				135				140					
Gly	Glu	Leu	Cys	Arg	Gln	Val	Pro	Thr	Thr	Glu	Ala	Glu	Leu	Leu	Val
145				150					155				160		
Ser	Gly	Asp	Glu	Asn	Cys	Ala	Tyr	Phe	Glu	Val	Ser	Ala	Lys	Lys	Asn
			165					170					175		
Thr	Asn	Val	Asp	Glu	Met	Phe	Tyr	Val	Leu	Phe	Ser	Met	Ala	Lys	Leu
			180					185				190			
Pro	His	Glu	Met	Ser	Pro	Ala	Leu	His	Arg	Lys	Ile	Ser	Val	Gln	Tyr

	195	200	205
Gly Asp Ala Phe His Pro Arg Pro Phe Cys Met Arg Arg Val Lys Glu			
210	215	220	
Met Asp Ala Tyr Gly Met Val Ser Pro Phe Ala Arg Arg Pro Ser Val			
225	230	235	240
Asn Ser Asp Leu Lys Tyr Ile Lys Ala Lys Val Leu Arg Glu Gly Gln			
245	250	255	
Ala Arg Glu Arg Asp Lys Cys Thr Ile Gln			
260	265		

<210> 199

<211> 2159

<212> DNA

<213> Homo sapiens

<400> 199

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<210> 200

<211> 529

<212> PRT

<213> Homo sapiens

<400> 200

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 Gly Asp Gln Ile Leu Asp Trp Gln Tyr Gly Val Thr Gln Ala Phe Pro
 35 40 45
 His Thr Glu Glu Glu Val Glu Val Asp Ser His Ala Tyr Ser His Arg
 50 55 60
 Trp Lys Arg Asn Leu Asp Phe Leu Lys Ala Val Asp Thr Asn Arg Ala
 65 70 75 80
 Ser Val Gly Gln Asp Ser Pro Glu Pro Arg Ser Phe Thr Asp Leu Leu
 85 90 95
 Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp
 100 105 110
 His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ser Asp Ser Ala Ser
 115 120 125
 Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys
 130 135 140
 Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn
 145 150 155 160
 Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Phe Leu Arg Glu Ile Thr
 165 170 175
 Val Ala Thr Gly Gly Phe Ile Tyr Thr Gly Glu Val Val His Arg Met
 180 185 190
 Leu Thr Ala Thr Gln Tyr Ile Ala Pro Leu Met Ala Asn Phe Asp Pro
 195 200 205
 Ser Val Ser Arg Asn Ser Thr Val Arg Tyr Phe Asp Asn Gly Thr Ala
 210 215 220
 Leu Val Val Gln Trp Asp His Val His Leu Gln Asp Asn Tyr Asn Leu
 225 230 235 240
 Gly Ser Phe Thr Phe Gln Ala Thr Leu Leu Met Asp Gly Arg Ile Ile
 245 250 255
 Phe Gly Tyr Lys Glu Ile Pro Val Leu Val Thr Gln Ile Ser Ser Thr
 260 265 270
 Asn His Pro Val Lys Val Gly Leu Ser Asp Ala Phe Val Val Val His
 275 280 285
 Arg Ile Gln Gln Ile Pro Asn Val Arg Arg Arg Thr Ile Tyr Glu Tyr
 290 295 300
 His Arg Val Glu Leu Gln Met Ser Lys Ile Thr Asn Ile Ser Ala Val
 305 310 315 320
 Glu Met Thr Pro Leu Pro Thr Cys Leu Gln Phe Asn Arg Cys Gly Pro
 325 330 335
 Cys Val Ser Ser Gln Ile Gly Phe Asn Cys Ser Trp Cys Ser Lys Leu
 340 345 350
 Gln Arg Cys Ser Ser Gly Phe Asp Arg His Arg Gln Asp Trp Val Asp
 355 360 365
 Ser Gly Cys Pro Glu Glu Ser Lys Glu Lys Met Cys Glu Asn Thr Glu
 370 375 380
 Pro Val Glu Thr Ser Ser Arg Thr Thr Thr Thr Ile Gly Ala Thr Thr
 385 390 395 400
 Thr Gln Phe Arg Val Leu Thr Thr Thr Arg Arg Ala Val Thr Ser Gln
 405 410 415
 Phe Pro Thr Ser Leu Pro Thr Glu Asp Asp Thr Lys Ile Ala Leu His
 420 425 430
 Leu Lys Asp Asn Gly Ala Ser Thr Asp Asp Ser Ala Ala Glu Lys Lys
 435 440 445
 Gly Gly Thr Leu His Ala Gly Leu Ile Val Gly Ile Leu Ile Leu Val
 450 455 460
 Leu Ile Val Ala Thr Ala Ile Leu Val Thr Val Tyr Met Tyr His His
 465 470 475 480
 Pro Thr Ser Ala Ala Ser Ile Phe Phe Ile Glu Arg Arg Pro Ser Arg
 485 490 495
 Trp Pro Ala Met Lys Phe Arg Arg Gly Ser Gly His Pro Ala Tyr Ala

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Glu Val Glu Pro Val Gly Glu Lys	Glu Gly Phe Ile Val Ser	Glu Gln
515	520	525
Cys		

<210> 201
<211> 2608
<212> DNA
<213> Homo sapiens

<400> 201

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<210> 202
<211> 350
<212> PRT
<213> Homo sapiens

<400> 202

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Glu	Met	Phe	Arg	Glu	Val	Glu	Glu	Leu	Met	Glu	Asp	Thr	Gln	His	Lys
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Ala	Ser	Ser	Glu	Val	Asn	Leu	Ala	Asn	Leu	Pro	Pro	Ser	Tyr	His	Asn
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Glu	Thr	Asn	Thr	Asp	Thr	Lys	Val	Gly	Asn	Asn	Thr	Ile	His	Val	His
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Arg	Glu	Ile	His	Lys	Ile	Thr	Asn	Asn	Gln	Thr	Gly	Gln	Met	Val	Phe
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Ser	Glu	Thr	Val	Ile	Thr	Ser	Val	Gly	Asp	Glu	Glu	Gly	Arg	Arg	Ser
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His	Glu	Cys	Ile	Ile	Asp	Glu	Asp	Cys	Gly	Pro	Ser	Met	Tyr	Cys	Gln
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Phe	Ala	Ser	Phe	Gln	Tyr	Thr	Cys	Gln	Pro	Cys	Arg	Gly	Gln	Arg	Met
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Leu	Cys	Thr	Arg	Asp	Ser	Glu	Cys	Cys	Gly	Asp	Gln	Leu	Cys	Val	Trp
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Gly	His	Cys	Thr	Lys	Met	Ala	Thr	Arg	Gly	Ser	Asn	Gly	Thr	Ile	Cys
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Asp	Asn	Gln	Arg	Asp	Cys	Gln	Pro	Gly	Leu	Cys	Cys	Ala	Phe	Gln	Arg
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Cys	His	Asp	Pro	Ala	Ser	Arg	Leu	Leu	Asp	Leu	Ile	Thr	Trp	Glu	Leu
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Glu	Pro	Asp	Gly	Ala	Leu	Asp	Arg	Cys	Pro	Cys	Ala	Ser	Gly	Leu	Leu
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Cys	Gln	Pro	His	Ser	His	Ser	Leu	Val	Tyr	Val	Cys	Lys	Pro	Thr	Phe
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Val	Gly	Ser	Arg	Asp	Gln	Asp	Gly	Glu	Ile	Leu	Leu	Pro	Arg	Glu	Val
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Pro	Asp	Glu	Tyr	Glu	Val	Gly	Ser	Phe	Met	Glu	Glu	Val	Arg	Gln	Glu
305					310				315					320	
Leu	Glu	Asp	Leu	Glu	Arg	Ser	Leu	Thr	Glu	Glu	Met	Ala	Leu	Gly	Glu
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<210> 203

<211> 7540

<212> DNA

<213> Homo sapiens

<400> 203

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Pro Ala Arg Glu Ser Arg Gln Pro Pro Thr Pro Pro Pro Arg Thr Cys
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Phe Pro Leu Ala Gly Leu Arg Ser Ala Arg Pro Leu Thr Gly Pro Glu
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Ala Gly Ala Arg Ala Ser Cys Ser Ser Ser Ser Ile Ala Ala Ser Tyr
225 230 235 240
Pro Val Ser Arg Ser Arg Ala Ala Ser Ser Ser Glu Glu Glu Glu
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Gly Pro Pro Gln Leu Pro Gly Ala Gln Ser Pro Ala Tyr His Gly Gly
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His Ser Ser Gly Ser Asp Asp Asp Arg Asp Gly Glu Gly His Arg
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Trp Gly Gly Arg Pro Gly Leu Arg Pro Gly Ser Ser Leu Leu Asp Gln
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Arg Glu Glu Gly Leu Arg Glu Trp Gly Ser Gly Ser Pro Pro Cys Val
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Pro Gly Pro Gln Glu Gly Leu Arg Pro Met Ser Asp Ser Val Gly Gly
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Ala Phe Arg Val Ala Lys Val Ser Phe Pro Ser Tyr Leu Ala Ser Pro
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Ala Gly Ser Arg Gly Ser Ser Arg Tyr Ser Ser Thr Glu Thr Leu Lys
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Asp Asp Asp Leu Trp Ser Ser Arg Gly Ser Gly Gly Trp Gly Val Tyr
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Arg Thr Arg Ala Lys Gly Pro Gly Gly Thr Ser Arg Ala Leu Arg Asp
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Gly Gly Phe Glu Pro Glu Lys Ser Arg Gln Arg Lys Ser Leu Ser Asn
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 Ser Arg Ala Gln Ser Glu Arg Ala Leu Pro Glu Ala Leu Pro Pro Pro
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 Leu Ser Pro Arg Leu Ile Arg Arg Gly Ser Lys Lys Arg Pro Ala Arg
 915 920 925
 Ser Ser His Gln Glu Leu Arg Arg Asp Glu Gly Ser Gln Asp Gln Thr

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Ser	Val	Pro	Ala	Thr	Phe	Met	Pro	Ile	Val	Val	Pro	Glu	Pro	Pro	Thr
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Ser	Val	Gly	Pro	Pro	Val	Ala	Val	Pro	Glu	Pro	Ile	Gly	Phe	Pro	Thr
				980					985				990		
Arg	Ala	His	Pro	Thr	Leu	Gln	Ala	Pro	Ser	Leu	Glu	Asp	Val	Thr	Lys
				995					1000				1005		
Gln	Tyr	Met	Leu	Asn	Leu	His	Ser	Gly	Glu	Val	Pro	Ala	Pro	Val	Pro
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Val	Asp	Met	Pro	Cys	Leu	Pro	Leu	Ala	Ala	Pro	Pro	Ser	Ala	Glu	Ala
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Lys	Pro	Pro	Glu	Ala	Ala	Arg	Pro	Ala	Asp	Glu	Pro	Thr	Pro	Ala	Ser
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Lys	Cys	Cys	Ser	Lys	Pro	Gln	Val	Asp	Met	Arg	Lys	His	Val	Ala	Met
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Thr	Leu	Leu	Asp	Thr	Glu	Gln	Ser	Tyr	Val	Glu	Ser	Leu	Arg	Thr	Leu
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Cys	Asp	Pro	Ser	Leu	Val	Asp	Glu	Ile	Phe	Asp	Gln	Ile	Pro	Glu	Leu
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 1890 1895 1900
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Val Ser Cys Pro Arg Ala Pro Leu Ser Pro Thr Gly Leu Gly Gln Gly			
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His Thr Gly His Val Arg Phe Leu Ala Ala Val Gln Leu Pro Asp Gly			
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Phe Asn Leu Leu Cys Pro Thr Pro Pro Pro Asp Thr Gly Pro			
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 Ala Pro Pro Asp Ala Cys Glu Ala Ser Phe Asp Ala Val Ser Thr Ile
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 Arg Gly Glu Leu Phe Phe Lys Ala Gly Phe Val Trp Arg Leu Arg
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 Gln Gly Leu Pro Ser Pro Val Asp Ala Ala Phe Glu Asp Ala Gln Gly
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 Lys Pro Val Leu Gly Pro Ala Pro Leu Thr Glu Leu Gly Leu Val Arg
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 Phe Pro Val His Ala Ala Leu Val Trp Gly Pro Glu Lys Asn Lys Ile
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 Tyr Phe Phe Arg Gly Arg Asp Tyr Trp Arg Phe His Pro Ser Thr Arg

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<400> 207

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<212> PRT
<213> Homo sapiens

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Pro	Ile	Ile	Lys	Phe	Pro	Gly	Asp	Val	Ala	Pro	Lys	Thr	Asp	Lys	Glu
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Leu	Ala	Val	Gln	Tyr	Leu	Asn	Thr	Phe	Tyr	Gly	Cys	Pro	Lys	Glu	Ser
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Arg	Ile	His	Asp	Gly	Glu	Ala	Asp	Ile	Met	Ile	Asn	Phe	Gly	Arg	Trp
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His	Ala	Phe	Ala	Pro	Gly	Thr	Gly	Val	Gly	Gly	Asp	Ser	His	Phe	Asp
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Tyr	Gly	Asn	Ala	Asp	Gly	Glu	Tyr	Cys	Lys	Phe	Pro	Phe	Leu	Phe	Asn
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Gly	Lys	Glu	Tyr	Asn	Ser	Cys	Thr	Asp	Thr	Gly	Arg	Ser	Asp	Gly	Phe
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Leu	Trp	Cys	Ser	Thr	Thr	Tyr	Asn	Phe	Glu	Lys	Asp	Gly	Lys	Tyr	Gly
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Gln	Pro	Cys	Lys	Phe	Pro	Phe	Arg	Phe	Gln	Gly	Thr	Ser	Tyr	Asp	Ser
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Thr Pro Glu Ile Cys Lys Gln Asp Ile Val Phe Asp Gly Ile Ala Gln		
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Ile Arg Gly Glu Ile Phe Phe Lys Asp Arg Phe Ile Trp Arg Thr		
485	490	495
Val Thr Pro Arg Asp Lys Pro Met Gly Pro Leu Leu Val Ala Thr Phe		
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Trp Pro Glu Leu Pro Glu Lys Ile Asp Ala Val Tyr Glu Ala Pro Gln		
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Glu Glu Lys Ala Val Phe Phe Ala Gly Asn Glu Tyr Trp Ile Tyr Ser		
530	535	540
Ala Ser Thr Leu Glu Arg Gly Tyr Pro Lys Pro Leu Thr Ser Leu Gly		
545	550	555
Leu Pro Pro Asp Val Gln Arg Val Asp Ala Ala Phe Asn Trp Ser Lys		
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Asn Lys Lys Thr Tyr Ile Phe Ala Gly Asp Lys Phe Trp Arg Tyr Asn		
580	585	590
Glu Val Lys Lys Lys Met Asp Pro Gly Phe Pro Lys Leu Ile Ala Asp		
595	600	605
Ala Trp Asn Ala Ile Pro Asp Asn Leu Asp Ala Val Val Asp Leu Gln		
610	615	620
Gly Gly Gly His Ser Tyr Phe Phe Lys Gly Ala Tyr Tyr Leu Lys Leu		
625	630	635
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 <212> DNA
 <213> Homo sapiens

<400> 209

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 <213> Homo sapiens

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 35 40 45
 Gly Ile Ile Glu Lys Arg Arg Asp Arg Ile Asn Ser Ser Leu Ser
 50 55 60
 Glu Leu Arg Arg Leu Val Pro Thr Ala Phe Glu Lys Gln Gly Ser Ser
 65 70 75 80
 Lys Leu Glu Lys Ala Glu Val Leu Gln Met Thr Val Asp His Leu Lys
 85 90 95
 Met Leu His Ala Thr Gly Gly Thr Gly Phe Asp Ala Arg Ala Leu
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 Ala Val Asp Phe Arg Ser Ile Gly Phe Arg Glu Cys Leu Thr Glu Val
 115 120 125
 Ile Arg Tyr Leu Gly Val Leu Glu Gly Pro Ser Ser Arg Ala Asp Pro
 130 135 140
 Val Arg Ile Arg Leu Leu Ser His Leu Asn Ser Tyr Ala Ala Glu Met
 145 150 155 160
 Glu Pro Ser Pro Thr Pro Thr Gly Pro Leu Ala Phe Pro Ala Trp Pro
 165 170 175
 Trp Ser Phe Phe His Ser Cys Pro Gly Leu Pro Ala Leu Ser Asn Gln
 180 185 190
 Leu Ala Ile Leu Gly Arg Val Pro Ser Pro Val Leu Pro Gly Val Ser
 195 200 205
 Ser Pro Ala Tyr Pro Ile Pro Ala Leu Arg Thr Ala Pro Leu Arg Arg
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 Ala Thr Gly Ile Ile Leu Pro Ala Arg Arg Asn Val Leu Pro Ser Arg
 225 230 235 240
 Gly Ala Ser Ser Thr Arg Arg Ala Arg Pro Leu Glu Arg Pro Ala Thr
 245 250 255
 Pro Val Pro Val Ala Pro Ser Ser Arg Ala Ala Arg Ser Ser His Ile
 260 265 270
 Ala Pro Leu Leu Gln Ser Ser Ser Pro Thr Pro Pro Gly Pro Thr Gly
 275 280 285
 Ser Ala Ala Tyr Val Ala Val Pro Thr Pro Asn Ser Ser Ser Pro Gly
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 Glu Ile Thr Glu Ile Gly Ala Phe
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 <212> DNA
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 Thr Leu Cys Ala Tyr Pro Ser Ala Leu His Ala Gln Ala Leu Gly Ser
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 Leu Gln Glu Ala Gln Leu Cys Cys Glu Gly Ala Leu Glu Leu His Thr

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 Tyr Asp Gly Lys Gly Val Gly Leu Gly Pro Gly Pro Met Gly Leu Met
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 Thr Pro Gly Gln Thr Gly Ala Arg Gly Leu Pro Gly Glu Arg Gly Arg
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 Gly Ala Pro Gly Pro His Gly Pro Val Gly Pro Ala Gly Lys His Gly

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His Asn Gly Leu Gln Gly Leu Pro Gly Ile Ala Gly His His Gly Asp		
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Gly Pro Ser Gly Pro Ala Gly Lys Asp Gly Arg Thr Gly His Pro Gly		
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Ile	Phe	Leu	Tyr	Pro	Glu	Asp	Gly	Leu	Gln	Phe	His	Thr	Thr	Phe	Ser
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Asn	Asp	Arg	Glu	Ser	Ile	Glu	Asn	Leu	Ala	Lys	Ser	Ser	Asn	Ser	Gly
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Tyr Asp Asp Glu Asp Glu Asp Tyr Asp Leu Ala Thr Thr Arg Leu Gly
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Cys	Tyr Asn Thr Pro Gly Ser Phe	Thr Cys Gln Cys Lys Pro Gly Tyr
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Val	Leu Phe Glu Thr Asp Leu Val Asn	Pro Arg Gly Ile Val Thr Asp
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Lys	Ile Glu Thr Ser Tyr Met Asp Gly	Thr Asn Arg Arg Ile Leu Val
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Ser	Gln Leu Cys Trp Val Asp Ala Gly	Thr Asn Arg Ala Glu Cys Leu
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Pro	Phe Ala Val Thr Ser Tyr Gly Lys	Asn Leu Tyr Phe Thr Asp Trp
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Lys	Met Asn Ser Val Val Ala Leu Asp	Leu Ala Ile Ser Lys Glu Thr
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Asp	Ala Phe Gln Pro His Lys Gln	Thr Arg Leu Tyr Gly Ile Thr Thr
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 Ile Phe Leu Leu Asp Gly Ser Ala Asn Val Gly Lys Thr Asn Phe Pro
 645 650 655
 Tyr Val Arg Asp Phe Val Met Asn Leu Val Asn Ser Leu Asp Ile Gly
 660 665 670
 Asn Asp Asn Ile Arg Val Gly Leu Val Gln Phe Ser Asp Thr Pro Val
 675 680 685
 Thr Glu Phe Ser Leu Asn Thr Tyr Gln Thr Lys Ser Asp Ile Leu Gly
 690 695 700
 His Leu Arg Gln Leu Gln Leu Gln Gly Ser Gly Leu Asn Thr Gly
 705 710 715 720
 Ser Ala Leu Ser Tyr Val Tyr Ala Asn His Phe Thr Glu Ala Gly Gly
 725 730 735
 Ser Arg Ile Arg Glu His Val Pro Gln Leu Leu Leu Leu Thr Ala
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 Gly Gln Ser Glu Asp Ser Tyr Leu Gln Ala Ala Asn Ala Leu Thr Arg
 755 760 765
 Ala Gly Ile Leu Thr Phe Cys Val Gly Ala Ser Gln Ala Asn Lys Ala
 770 775 780
 Glu Leu Glu Gln Ile Ala Phe Asn Pro Ser Leu Val Tyr Leu Met Asp
 785 790 795 800
 Asp Phe Ser Ser Leu Pro Ala Leu Pro Gln Gln Leu Ile Gln Pro Leu
 805 810 815
 Thr Thr Tyr Val Ser Gly Gly Val Glu Glu Val Pro Leu Ala Gln Pro
 820 825 830
 Glu Ser Lys Arg Asp Ile Leu Phe Leu Phe Asp Gly Ser Ala Asn Leu
 835 840 845
 Val Gly Gln Phe Pro Val Val Arg Asp Phe Leu Tyr Lys Ile Ile Asp
 850 855 860
 Glu Leu Asn Val Lys Pro Glu Gly Thr Arg Ile Ala Val Ala Gln Tyr
 865 870 875 880
 Ser Asp Asp Val Lys Val Glu Ser Arg Phe Asp Glu His Gln Ser Lys
 885 890 895
 Pro Glu Ile Leu Asn Leu Val Lys Arg Met Lys Ile Lys Thr Gly Lys
 900 905 910
 Ala Leu Asn Leu Gly Tyr Ala Leu Asp Tyr Ala Gln Arg Tyr Ile Phe

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Val Lys Ser Ala Gly Ser Arg Ile Glu Asp Gly Val Leu Gln Phe Leu		
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Val Leu Leu Val Ala Gly Arg Ser Ser Asp Arg Val Asp Gly Pro Ala		
945	950	955
Ser Asn Leu Lys Gln Ser Gly Val Val Pro Phe Ile Phe Gln Ala Lys		
965	970	975
Asn Ala Asp Pro Ala Glu Leu Glu Gln Ile Val Leu Ser Pro Ala Phe		
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Ile Leu Ala Ala Glu Ser Leu Pro Lys Ile Gly Asp Leu His Pro Gln		
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Ile Val Asn Leu Leu Lys Ser Val His Asn Gly Ala Pro Ala Pro Val		
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Ser Gly Glu Lys Asp Val Val Phe Leu Leu Asp Gly Ser Glu Gly Val		
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Arg Ser Gly Phe Pro Leu Leu Lys Glu Phe Val Gln Arg Val Val Glu		
1045	1050	1055
Ser Leu Asp Val Gly Gln Asp Arg Val Arg Val Ala Val Val Gln Tyr		
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Ser Asp Arg Thr Arg Pro Glu Phe Tyr Leu Asn Ser Tyr Met Asn Lys		
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Gln Asp Val Val Asn Ala Val Arg Gln Leu Thr Leu Leu Gly Gly Pro		
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Thr Pro Asn Thr Gly Ala Ala Leu Glu Phe Val Leu Arg Asn Ile Leu		
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Val Ser Ser Ala Gly Ser Arg Ile Thr Glu Gly Val Pro Gln Leu Leu		
1125	1130	1135
Ile Val Leu Thr Ala Asp Arg Ser Gly Asp Asp Val Arg Asn Pro Ser		
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Val Val Val Lys Arg Gly Gly Ala Val Pro Ile Gly Ile Gly Ile Gly		
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Asn Ala Asp Ile Thr Glu Met Gln Thr Ile Ser Phe Ile Pro Asp Phe		
1170	1175	1180
Ala Val Ala Ile Pro Thr Phe Arg Gln Leu Gly Thr Val Gln Gln Val		
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Ile Ser Glu Arg Val Thr Gln Leu Thr Arg Glu Glu Leu Ser Arg Leu		
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Gln Pro Val Leu Gln Pro Leu Pro Ser Pro Gly Val Gly Gly Lys Arg		
1220	1225	1230
Asp Val Val Phe Leu Ile Asp Gly Ser Gln Ser Ala Gly Pro Glu Phe		
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Gln Tyr Val Arg Thr Leu Ile Glu Arg Leu Val Asp Tyr Leu Asp Val		
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Gly Phe Asp Thr Thr Arg Val Ala Val Ile Gln Phe Ser Asp Asp Pro		
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Lys Ala Glu Phe Leu Leu Asn Ala His Ser Ser Lys Asp Glu Val Gln		
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Asn Ala Val Gln Arg Leu Arg Pro Lys Gly Gly Arg Gln Ile Asn Val		
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Gly Asn Ala Leu Glu Tyr Val Ser Arg Asn Ile Phe Lys Arg Pro Leu		
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Gly Ser Arg Ile Glu Glu Gly Val Pro Gln Phe Leu Val Leu Ile Ser		
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Ser Gly Lys Ser Asp Asp Glu Val Val Pro Ala Val Glu Leu Lys		
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Gln Phe Gly Val Ala Pro Phe Thr Ile Ala Arg Asn Ala Asp Gln Glu		
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Glu Leu Val Lys Ile Ser Leu Ser Pro Glu Tyr Val Phe Ser Val Ser		
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Thr Phe Arg Glu Leu Pro Ser Leu Glu Gln Lys Leu Leu Thr Pro Ile		
1395	1400	1405

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 Tyr Pro Pro Pro Ala Val Glu Ser Asp Ala Ala Asp Ile Val Phe Leu
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 Ile Asp Ser Ser Glu Gly Val Arg Pro Asp Gly Phe Ala His Ile Arg
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 Asp Phe Val Ser Arg Ile Val Arg Arg Leu Asn Ile Gly Pro Ser Lys
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 Pro Glu Lys Lys Ala Asp Ile Val Phe Leu Leu Asp Gly Ser Ile
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 1795 1800 1805
 Ser Glu Gln Val Leu Glu Thr Leu His Asp Ala Met His Glu Thr Leu
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 Leu Gly Phe Asp Gly Ser Arg Asp Gln Asn Val Phe Val Ala Gln Lys
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 His Arg Val Ser Cys Ser Gly Gly Arg Ser Pro Thr Val Arg Val Ser
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 Val Val Ala Asn Thr Pro Ser Gly Pro Val Glu Ala Phe Asp Phe Asp

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Tyr		
Gln		
Pro		
Glu		
Met		
Leu		
Glu		
Lys		
Phe		
Arg		
Asn		
Met		
Arg		
Ser		
Gln		
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Pro		
Tyr		
Val		
Leu		
Thr		
Glu		
Asp		
Thr		
Leu		
Lys		
Val		
Tyr		
Leu		
Asn		
Lys		
Phe		
Arg		
Gln		
Ser		
Ser		
Pro		
Asp		
Ser		
Val		
Lys		
Val		
Val		
Ile		
His		
Phe		
Thr		
Gly		
Ala		
Asp		
Gly		
Asp		
Leu		
Ala		
Asp		
Leu		
His		
Arg		
Gly		
1925	1930	1935
1940	1945	1950
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Gly		
Ala		
Asp		
Gly		
Asp		
Leu		
Ala		
Asp		
Leu		
His		
Arg		
Gly		
1955	1960	1965
1970	1975	1980
Leu		
Arg		
Gln		
Glu		
Gly		
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Ala		
Leu		
Ile		
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Glu		
Arg		
Leu		
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His		
Leu		
Glu		
Phe		
1985	1990	1995
Met		
Tyr		
Asp		
Arg		
Pro		
Leu		
Arg		
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Ala		
Glu		
Gln		
Leu		
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Asn		
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2005		
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Glu		
Gln		
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2020		
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Asp Lys Cys Pro Cys Cys Tyr Gly Pro Leu Glu Cys Pro Val Phe Pro
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 Thr Glu Leu Ala Phe Ala Leu Asp Thr Ser Glu Gly Val Asn Gln Asp
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 Thr Phe Gly Arg Met Arg Asp Val Val Leu Ser Ile Val Asn Val Leu
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 Thr Ile Ala Glu Ser Asn Cys Pro Thr Gly Ala Arg Val Ala Val Val
 2435 2440 2445
 Thr Tyr Asn Asn Glu Val Thr Thr Glu Ile Arg Phe Ala Asp Ser Lys
 2450 2455 2460
 Arg Lys Ser Val Leu Leu Asp Lys Ile Lys Asn Leu Gln Val Ala Leu
 2465 2470 2475 2480
 Thr Ser Lys Gln Gln Ser Leu Glu Thr Ala Met Ser Phe Val Ala Arg
 2485 2490 2495
 Asn Thr Phe Lys Arg Val Arg Asn Gly Phe Leu Met Arg Lys Val Ala
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 Val Phe Phe Ser Asn Thr Pro Thr Arg Ala Ser Pro Gln Leu Arg Glu
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 Ala Val Leu Lys Leu Ser Asp Ala Gly Ile Thr Pro Leu Phe Leu Thr
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 Asp Ser Ala Glu Thr Thr Leu Phe Gln Phe Asn Glu Met Lys Lys
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 Tyr Ile Ala Tyr Leu Val Arg Gln Leu Asp Met Ser Pro Asp Pro Lys
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 Glu Ser Val Ser Met Pro Pro Val Lys Val Glu Phe Ser Leu Thr Asp
 2675 2680 2685
 Tyr Gly Ser Lys Glu Lys Leu Val Asp Phe Leu Ser Arg Gly Met Thr
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 Gln Leu Gln Gly Thr Arg Ala Leu Gly Ser Ala Ile Glu Tyr Thr Ile
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 Glu Asn Val Phe Glu Ser Ala Pro Asn Pro Arg Asp Leu Lys Ile Val
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 2740 2745 2750
 Gln Arg Val Ile Leu Gln Ala Lys Cys Lys Gly Tyr Phe Val Val
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 Gly His Lys Gln Val Asn Val Pro Asn Asn Val Thr Ser Ser Pro Thr
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 Ser Asn Pro Val Thr Thr Lys Pro Val Thr Thr Lys Pro Val

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Lys Pro Val Ala Ala Lys Pro Val Ala Thr Lys Thr Ala Thr Val Arg			
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Pro Pro Val Ala Val Lys Pro Ala Thr Ala Ala Lys Pro Val Ala Ala			
2930	2935	2940	
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Glu Pro Pro Gly Pro Tyr Phe Tyr Asp Leu Thr Val Thr Ser Ala His			
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Asp Gln Ser Leu Val Leu Lys Gln Asn Leu Thr Val Thr Asp Arg Val			
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Ile Gly Gly Leu Leu Ala Gly Gln Thr Tyr His Val Ala Val Val Cys			
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Tyr Leu Arg Ser Gln Val Arg Ala Thr Tyr His Gly Ser Phe Ser Thr			
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Lys Lys Ser Gln Pro Pro Pro Gln Pro Ala Arg Ser Ala Ser Ser			
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Ser Thr Ile Asn Leu Met Val Ser Thr Glu Pro Leu Ala Leu Thr Glu			
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Trp Tyr Gly Cys Gly Gly Asn Glu Asn Lys Phe Gly Ser Gln Lys			
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 Gly Thr Val Gly Val Pro Glu His Thr Tyr Arg Ser Arg Thr Asn Phe
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 Thr Ser Lys Tyr His Met Lys Val Leu Tyr Leu Ser Ala Phe Thr Ser
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<210> 222

<211> 594

<212> DNA

<213> Homo sapiens

<400> 222

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ggccctggcc	tggagcccca	aggaggagga	taggataatc	ccgggtggca	tctataaacgc	180
agacctcaat	gatgagtggg	tacagcgtgc	ccttcacttc	gccatcagcg	agtataacaa	240
ggccaccaa	gatgactact	acagacgtcc	gctgcgggta	ctaagagcca	ggcaacagac	300
cgttgggggg	gtgaattact	tcttcgacgt	agaggtgggc	cgaaccat	gtaccaagtc	360
ccagcccaac	ttggacacct	gtgccttcca	tgaacagcca	gaactgcaga	agaaacagtt	420
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gtgtcaagaa	tcctagggat	ctgtgccagg	ccattcgcac	cagccaccac	ccactcccac	540
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<210> 223

<211> 141

<212> PRT

<213> Homo sapiens

<400> 223

Met	Ala	Arg	Pro	Leu	Cys	Thr	Leu	Leu	Leu	Leu	Met	Ala	Thr	Leu	Ala
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Gly	Ala	Leu	Ala	Ser	Ser	Ser	Lys	Glu	Glu	Asn	Arg	Ile	Ile	Pro	Gly
				20			25				30				
Gly	Ile	Tyr	Asp	Ala	Asp	Leu	Asn	Asp	Glu	Trp	Val	Gln	Arg	Ala	Leu
				35			40			45					
His	Phe	Ala	Ile	Ser	Glu	Tyr	Asn	Lys	Ala	Thr	Glu	Asp	Glu	Tyr	Tyr
	50				55			60							
Arg	Arg	Pro	Leu	Gln	Val	Leu	Arg	Ala	Arg	Glu	Gln	Thr	Phe	Gly	Gly
	65				70			75			80				
Val	Asn	Tyr	Phe	Phe	Asp	Val	Glu	Val	Gly	Arg	Thr	Ile	Cys	Thr	Lys
					85			90			95				
Ser	Gln	Pro	Asn	Leu	Asp	Thr	Cys	Ala	Phe	His	Glu	Gln	Pro	Glu	Leu
				100			105			110					
Gln	Lys	Lys	Gln	Leu	Cys	Ser	Phe	Glu	Ile	Tyr	Glu	Val	Pro	Trp	Glu
				115			120			125					
Asp	Arg	Met	Ser	Leu	Val	Asn	Ser	Arg	Cys	Gln	Glu	Ala			

130

135

140

<210> 224
 <211> 141
 <212> PRT
 <213> Homo sapiens

<400> 224
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 20 25 30
 Gly Ile Tyr Asn Ala Asp Leu Asn Asp Glu Trp Val Gln Arg Ala Leu
 35 40 45
 His Phe Ala Ile Ser Glu Tyr Asn Lys Ala Thr Lys Asp Asp Tyr Tyr
 50 55 60
 Arg Arg Pro Leu Arg Val Leu Arg Ala Arg Gln Gln Thr Val Gly Gly
 65 70 75 80
 Val Asn Tyr Phe Phe Asp Val Glu Val Gly Arg Thr Ile Cys Thr Lys
 85 90 95
 Ser Gln Pro Asn Leu Asp Thr Cys Ala Phe His Glu Gln Pro Glu Leu
 100 105 110
 Gln Lys Lys Gln Leu Cys Ser Phe Glu Ile Tyr Glu Val Pro Trp Glu
 115 120 125
 Asn Arg Arg Ser Leu Val Lys Ser Arg Cys Gln Glu Ser
 130 135 140

<210> 225
 <211> 5460
 <212> DNA
 <213> Homo sapiens

<400> 225

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aaggggagct	ggctacttct	cgctctgtt	catcccacta	ttatttggc	acaacaggaa	180
gctgttgaag	gaggatgttc	ccatcttgg	cagtctatg	cgatagaga	tgtcttggaa	240
ccagaaccat	gccaaatatg	tgtctgtac	tcagatccg	ttctctgca	tgacataata	300
tgtgacgatc	aagaattaga	tgcccccaac	ccagaaatttcc	cattttggaa	atgttgtca	360
gtttccccac	agcctccaac	tgctctact	cgccctccctaa	atggtaagg	acctaaggc	420
cccaagggag	atccaggcccc	tccttggatt	cctggagaa	atggtgaccc	tggtattcca	480
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ggaggactcg	caggctatcc	tggaccagct	ggccccccag	gccctcccg	tccccctgg	660
acatctggtc	atccctggtc	cccttggatct	ccagatacc	aaggacccc	tggtaaccc	720
gggc当地	gtccttcagg	ccctccaggaa	cctcttgg	ctatagg	atctggcct	780
gctggaaag	atggagaatc	agtttagaccc	ggacgacctg	gagagcgg	attgccttgg	840
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aatggtcttc	caggcggaaa	tggatcttc	ggaccatgg	gttcaatgg	ggcttgg	1020
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<210> 226
 <211> 1466
 <212> PRT
 <213> Homo sapiens

<400> 226
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 Ser His Leu Gly Gln Ser Tyr Ala Asp Arg Asp Val Trp Lys Pro Glu
 35 40 45
 Pro Cys Gln Ile Cys Val Cys Asp Ser Gly Ser Val Leu Cys Asp Asp
 50 55 60
 Ile Ile Cys Asp Asp Gln Glu Leu Asp Cys Pro Asn Pro Glu Ile Pro
 65 70 75 80
 Phe Gly Glu Cys Cys Ala Val Cys Pro Gln Pro Pro Thr Ala Pro Thr
 85 90 95
 Arg Pro Pro Asn Gln Gly Pro Gln Gly Pro Lys Gly Asp Pro Gly
 100 105 110
 Pro Pro Gly Ile Pro Gly Arg Asn Gly Asp Pro Gly Ile Pro Gly Gln
 115 120 125
 Pro Gly Ser Pro Gly Ser Pro Gly Pro Pro Gly Ile Cys Glu Ser Cys
 130 135 140
 Pro Thr Gly Pro Gln Asn Tyr Ser Pro Gln Tyr Asp Ser Tyr Asp Val
 145 150 155 160
 Lys Ser Gly Val Ala Val Gly Gly Leu Ala Gly Tyr Pro Gly Pro Ala
 165 170 175
 Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Thr Ser Gly His Pro Gly
 180 185 190
 Ser Pro Gly Ser Pro Gly Tyr Gln Gly Pro Pro Gly Glu Pro Gly Gln
 195 200 205
 Ala Gly Pro Ser Gly Pro Pro Gly Pro Pro Gly Ala Ile Gly Pro Ser
 210 215 220
 Gly Pro Ala Gly Lys Asp Gly Glu Ser Gly Arg Pro Gly Arg Pro Gly
 225 230 235 240
 Glu Arg Gly Leu Pro Gly Pro Pro Gly Ile Lys Gly Pro Ala Gly Ile
 245 250 255
 Pro Gly Phe Pro Gly Met Lys Gly His Arg Gly Phe Asp Gly Arg Asn
 260 265 270
 Gly Glu Lys Gly Glu Thr Gly Ala Pro Gly Leu Lys Gly Glu Asn Gly
 275 280 285
 Leu Pro Gly Glu Asn Gly Ala Pro Gly Pro Met Gly Pro Arg Gly Ala
 290 295 300
 Pro Gly Glu Arg Gly Arg Pro Gly Leu Pro Gly Ala Ala Gly Ala Arg
 305 310 315 320
 Gly Asn Asp Gly Ala Arg Gly Ser Asp Gly Gln Pro Gly Pro Pro Gly
 325 330 335
 Pro Pro Gly Thr Ala Gly Phe Pro Gly Ser Pro Gly Ala Lys Gly Glu
 340 345 350
 Val Gly Pro Ala Gly Ser Pro Gly Ser Asn Gly Ala Pro Gly Gln Arg
 355 360 365
 Gly Glu Pro Gly Pro Gln Gly His Ala Gly Ala Gln Gly Pro Pro Gly
 370 375 380
 Pro Pro Gly Ile Asn Gly Ser Pro Gly Gly Lys Gly Glu Met Gly Pro

385	390	395	400												
Ala	Gly	Ile	Pro	Gly	Ala	Pro	Gly	Leu	Met	Gly	Ala	Arg	Gly	Pro	Pro
									405		410				415
Gly	Pro	Ala	Gly	Ala	Asn	Gly	Ala	Pro	Gly	Leu	Arg	Gly	Gly	Ala	Gly
									420		425				430
Glu	Pro	Gly	Lys	Asn	Gly	Ala	Lys	Gly	Glu	Pro	Gly	Pro	Arg	Gly	Glu
									435		440				445
Arg	Gly	Glu	Ala	Gly	Ile	Pro	Gly	Val	Pro	Gly	Ala	Lys	Gly	Glu	Asp
									450		455				460
Gly	Lys	Asp	Gly	Ser	Pro	Gly	Glu	Pro	Gly	Ala	Asn	Gly	Leu	Pro	Gly
									465		470				480
Ala	Ala	Gly	Glu	Arg	Gly	Ala	Pro	Gly	Phe	Arg	Gly	Pro	Ala	Gly	Pro
									485		490				495
Asn	Gly	Ile	Pro	Gly	Glu	Lys	Gly	Pro	Ala	Gly	Glu	Arg	Gly	Ala	Pro
									500		505				510
Gly	Pro	Ala	Gly	Pro	Arg	Gly	Ala	Ala	Gly	Glu	Pro	Gly	Arg	Asp	Gly
									515		520				525
Val	Pro	Gly	Gly	Pro	Gly	Met	Arg	Gly	Met	Pro	Gly	Ser	Pro	Gly	Gly
									530		535				540
Pro	Gly	Ser	Asp	Gly	Lys	Pro	Gly	Pro	Pro	Gly	Ser	Gln	Gly	Glu	Ser
									545		550				560
Gly	Arg	Pro	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Pro	Arg	Gly	Gln	Pro	Gly
									565		570				575
Val	Met	Gly	Phe	Pro	Gly	Pro	Lys	Gly	Asn	Asp	Gly	Ala	Pro	Gly	Lys
									580		585				590
Asn	Gly	Glu	Arg	Gly	Gly	Pro	Gly	Gly	Pro	Gly	Pro	Gln	Gly	Pro	Pro
									595		600				605
Gly	Lys	Asn	Gly	Glu	Thr	Gly	Pro	Gln	Gly	Pro	Pro	Gly	Pro	Thr	Gly
									610		615				620
Pro	Gly	Gly	Asp	Lys	Gly	Asp	Thr	Gly	Pro	Pro	Gly	Pro	Gln	Gly	Leu
									625		630				640
Gln	Gly	Leu	Pro	Gly	Thr	Gly	Gly	Pro	Pro	Gly	Glu	Asn	Gly	Lys	Pro
									645		650				655
Gly	Glu	Pro	Gly	Pro	Lys	Gly	Asp	Ala	Gly	Ala	Pro	Gly	Ala	Pro	Gly
									660		665				670
Gly	Lys	Gly	Asp	Ala	Gly	Ala	Pro	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Leu
									675		680				685
Ala	Gly	Ala	Ala	Pro	Gly	Leu	Arg	Gly	Ala	Gly	Pro	Pro	Gly	Pro	Glu
									690		695				700
Gly	Gly	Lys	Gly	Ala	Ala	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ala	Ala	Gly
									705		710				720
Thr	Pro	Gly	Leu	Gln	Gly	Met	Pro	Gly	Glu	Arg	Gly	Gly	Leu	Gly	Ser
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Pro	Gly	Pro	Lys	Gly	Asp	Lys	Gly	Glu	Pro	Gly	Gly	Pro	Gly	Ala	Asp
									740		745				750
Gly	Val	Pro	Gly	Lys	Asp	Gly	Pro	Arg	Gly	Pro	Thr	Gly	Pro	Ile	Gly
									755		760				765
Pro	Pro	Gly	Pro	Ala	Gly	Gln	Pro	Gly	Asp	Lys	Gly	Glu	Gly	Gly	Ala
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Pro	Gly	Leu	Pro	Gly	Ile	Ala	Gly	Pro	Arg	Gly	Ser	Pro	Gly	Glu	Arg
									785		790				800
Gly	Glu	Thr	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Phe	Pro	Gly	Ala	Pro	Gly
									805		810				815
Gln	Asn	Gly	Glu	Pro	Gly	Gly	Lys	Gly	Glu	Arg	Gly	Ala	Pro	Gly	Glu
									820		825				830
Lys	Gly	Glu	Gly	Gly	Pro	Pro	Gly	Val	Ala	Gly	Pro	Pro	Gly	Gly	Ser
									835		840				845
Gly	Pro	Ala	Gly	Pro	Pro	Gly	Pro	Gln	Gly	Val	Lys	Gly	Glu	Arg	Gly
									850		855				860
Ser	Pro	Gly	Gly	Pro	Gly	Ala	Ala	Gly	Phe	Pro	Gly	Ala	Arg	Gly	Leu
									865		870				880

Pro Gly Pro Pro Gly Ser Asn Gly Asn Pro Gly Pro Pro Gly Pro Ser
 885 890 895
 Gly Ser Pro Gly Lys Asp Gly Pro Pro Gly Pro Ala Gly Asn Thr Gly
 900 905 910
 Ala Pro Gly Ser Pro Gly Val Ser Gly Pro Lys Gly Asp Ala Gly Gln
 915 920 925
 Pro Gly Glu Lys Gly Ser Pro Gly Ala Gln Gly Pro Pro Gly Ala Pro
 930 935 940
 Gly Pro Leu Gly Ile Ala Gly Ile Thr Gly Ala Arg Gly Leu Ala Gly
 945 950 955 960
 Pro Pro Gly Met Pro Gly Pro Arg Gly Ser Pro Gly Pro Gln Gly Val
 965 970 975
 Lys Gly Glu Ser Gly Lys Pro Gly Ala Asn Gly Leu Ser Gly Glu Arg
 980 985 990
 Gly Pro Pro Gly Pro Gln Gly Leu Pro Gly Leu Ala Gly Thr Ala Gly
 995 1000 1005
 Glu Pro Gly Arg Asp Gly Asn Pro Gly Ser Asp Gly Leu Pro Gly Arg
 1010 1015 1020
 Asp Gly Ser Pro Gly Gly Lys Gly Asp Arg Gly Glu Asn Gly Ser Pro
 1025 1030 1035 1040
 Gly Ala Pro Gly Ala Pro Gly His Pro Gly Pro Pro Gly Pro Val Gly
 1045 1050 1055
 Pro Ala Gly Lys Ser Gly Asp Arg Gly Glu Ser Gly Pro Ala Gly Pro
 1060 1065 1070
 Ala Gly Ala Pro Gly Pro Ala Gly Ser Arg Gly Ala Pro Gly Pro Gln
 1075 1080 1085
 Gly Pro Arg Gly Asp Lys Gly Glu Thr Gly Glu Arg Gly Ala Ala Gly
 1090 1095 1100
 Ile Lys Gly His Arg Gly Phe Pro Gly Asn Pro Gly Ala Pro Gly Ser
 1105 1110 1115 1120
 Pro Gly Pro Ala Gly Gln Gln Gly Ala Ile Gly Ser Pro Gly Pro Ala
 1125 1130 1135
 Gly Pro Arg Gly Pro Val Gly Pro Ser Gly Pro Pro Gly Lys Asp Gly
 1140 1145 1150
 Thr Ser Gly His Pro Gly Pro Ile Gly Pro Pro Gly Pro Arg Gly Asn
 1155 1160 1165
 Arg Gly Glu Arg Gly Ser Glu Gly Ser Pro Gly His Pro Gly Gln Pro
 1170 1175 1180
 Gly Pro Pro Gly Pro Pro Gly Ala Pro Gly Pro Cys Cys Gly Gly Val
 1185 1190 1195 1200
 Gly Ala Ala Ala Ile Ala Gly Ile Gly Gly Glu Lys Ala Gly Gly Phe
 1205 1210 1215
 Ala Pro Tyr Tyr Gly Asp Glu Pro Met Asp Phe Lys Ile Asn Thr Asp
 1220 1225 1230
 Glu Ile Met Thr Ser Leu Lys Ser Val Asn Gly Gln Ile Glu Ser Leu
 1235 1240 1245
 Ile Ser Pro Asp Gly Ser Arg Lys Asn Pro Ala Arg Asn Cys Arg Asp
 1250 1255 1260
 Leu Lys Phe Cys His Pro Glu Leu Lys Ser Gly Glu Tyr Trp Val Asp
 1265 1270 1275 1280
 Pro Asn Gln Gly Cys Lys Leu Asp Ala Ile Lys Val Phe Cys Asn Met
 1285 1290 1295
 Glu Thr Gly Glu Thr Cys Ile Ser Ala Asn Pro Leu Asn Val Pro Arg
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 Lys His Trp Trp Thr Asp Ser Ser Ala Glu Lys Lys His Val Trp Phe
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<212> DNA

<213> Homo sapiens

<400> 227

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Val Phe Gly Lys Glu Asp Leu Ser Lys Asp Asp Arg Phe Pro Asp Tyr						
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Gly Lys Val Glu Leu Val Phe Ser Ala Thr Pro Glu Lys Ile Gln Gly						
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Ser Glu His Leu Tyr Asn Asp His Gly Val Ile Val Asp Tyr Asn Thr						
65	70	75	80			
Thr Asp Pro Leu Ile Arg Trp Asp Ser Tyr Glu Asn Leu Ser Ala Asp						
85	90	95				
Gly Glu Val Leu His Thr Gln Gly Pro Val Asp Gly Ser Leu Tyr Ala						
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Lys Val Arg Lys Lys Ser Ser Asp Pro Gly Ile Pro Gly Gly Pro						
115	120	125				
Gln Ala Ile Pro Ala Thr Asn Ser Pro Asp His Ser Asp His Thr Leu						
130	135	140				
Ser Val Ser Ser Asp Ser Gly His Ser Thr Ala Ser Ala Arg Thr Asp						
145	150	155	160			
Lys Thr Glu Glu Arg Leu Ala Pro Gly Thr Arg Arg Gly Leu Ser Ala						
165	170	175				
Gln Glu Lys Ala Glu Leu Asp Gln Leu Leu Ser Gly Phe Gly Leu Glu						
180	185	190				
Asp Pro Gly Ser Ser Leu Lys Glu Met Thr Asp Ala Arg Ser Lys Tyr						
195	200	205				
Ser Gly Thr Arg His Val Val Pro Ala Gln Val His Val Asn Gly Asp						
210	215	220				
Ala Ala Leu Lys Asp Arg Glu Thr Asp Ile Leu Asp Asp Glu Met Pro						
225	230	235	240			
His His Asp Leu His Ser Val Asp Ser Leu Gly Thr Leu Ser Ser Ser						
245	250	255				
Glu Gly Pro Gln Ser Ala His Leu Gly Pro Phe Thr Cys His Lys Ser						
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Ser Gln Asn Ser Leu Leu Ser Asp Gly Phe Gly Ser Asn Val Gly Glu						
275	280	285				
Asp Pro Gln Gly Thr Leu Val Pro Asp Leu Gly Leu Gly Met Asp Gly						
290	295	300				
Pro Tyr Glu Arg Glu Arg Thr Phe Gly Ser Arg Glu Pro Lys Gln Pro						
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Gln Pro Leu Leu Arg Lys Pro Ser Val Ser Ala Gln Met Gln Ala Tyr						
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Gly Gln Ser Ser Tyr Ser Thr Gln Thr Trp Val Arg Gln Gln Met
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 Val Val Ala His Gln Tyr Ser Phe Ala Pro Asp Gly Glu Ala Arg Leu
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 Arg Val Pro Leu Thr Pro Thr Arg Gly Thr Ser Ser Arg Val Ala Val
 385 390 395 400
 Gln Arg Gly Val Gly Ser Gly Pro His Pro Pro Asp Thr Gln Gln Pro
 405 410 415
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 Asn Gly Ala Gly Pro Glu Leu Ser Thr Gly Pro Ser Pro Gly Ser Pro
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 Glu Leu Asp Pro Thr Phe Glu Pro Ile Pro Thr His Met Asn Ala Leu
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 Gly Ser Gln Ala Asn Gly Ser Val Ser Pro Asp Ser Val Gly Gly Gly
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 Ala Thr Gly Arg Gln Gly Ser Ser Ala Glu Gln Pro Leu Gly Gly Arg
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 645 650 655
 Glu Ser Pro Ile Gly Pro Lys Ser Thr Met Leu Arg Ala Asp Ala Ser
 660 665 670
 Ser Thr Pro Ser Phe Gln Gln Ala Phe Ala Ser Ser Cys Thr Ile Ser
 675 680 685
 Ser Asn Gly Pro Gly Gln Arg Arg Glu Ser Ser Ser Ala Glu Arg
 690 695 700
 Gln Trp Val Glu Ser Ser Pro Lys Pro Met Val Ser Leu Leu Gly Ser
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 725 730 735
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 Gly Ser Gly Leu Pro Pro Glu Glu Asp Leu Gly Ala Leu Leu Ala Asn
 785 790 795 800
 Ser His Gly Ala Ser Pro Thr Pro Ser Ile Pro Leu Thr Ala Thr Gly
 805 810 815
 Ala Ala Asp Asn Gly Phe Leu Ser His Asn Phe Leu Thr Val Ala Pro

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850	855	860
Asp Arg Ser Leu Gly Ser Val Ser	Pro Ser Ser Ser Gly Phe Ser Ser	
865	870	875
Pro His Ser Gly Ser Thr Ile Ser	Ile Pro Phe Pro Asn Val Leu Pro	
885	890	895
Asp Phe Ser Lys Ala Ser Glu Ala	Ala Ser Pro Leu Pro Asp Ser Pro	
900	905	910
Gly Asp Lys Leu Val Ile Val Lys	Phe Val Gln Asp Thr Ser Lys Phe	
915	920	925
Trp Tyr Lys Ala Asp Ile Ser Arg	Glu Gln Ala Ile Ala Met Leu Lys	
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Asp Lys Glu Pro Gly Ser Phe Ile	Val Arg Asp Ser His Ser Phe Arg	
945	950	955
Gly Ala Tyr Gly Leu Ala Met Lys	Val Ala Thr Pro Pro Pro Ser Val	
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Leu Gln Leu Asn Lys Lys Ala Gly	Asp Leu Ala Asn Glu Leu Val Arg	
980	985	990
His Phe Leu Ile Glu Cys Thr Pro	Lys Gly Val Arg Leu Lys Gly Cys	
995	1000	1005
Ser Asn Glu Pro Tyr Phe Gly Ser	Leu Thr Ala Leu Val Cys Gln His	
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Ser Ile Thr Pro Leu Ala Leu Pro	Cys Lys Leu Leu Ile Pro Glu Arg	
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Asp Pro Leu Glu Glu Ile Ala Glu	Ser Ser Pro Gln Thr Ala Ala Asn	
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Ser Ala Ala Glu Leu Leu Lys Gln	Gly Ala Ala Cys Asn Val Trp Tyr	
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Leu Asn Ser Val Glu Met Glu	Ser Leu Thr Gly His Gln Ala Ile Gln	
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Lys Ala Leu Ser Ile Thr Leu Val	Gln Glu Pro Pro Val Ser Thr	
1090	1095	1100
Val Val His Phe Lys Val Ser Ala	Gln Gly Ile Thr Leu Thr Asp Asn	
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Gln Arg Lys Leu Phe Arg Arg His	Tyr Pro Val Asn Ser Val Ile	
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Phe Cys Ala Leu Asp Pro Gln Asp	Arg Lys Trp Ile Lys Asp Gly Pro	
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Ser Ser Lys Val Phe Gly Phe Val	Ala Arg Lys Gln Gly Ser Ala Thr	
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Asp Asn Val Cys His Leu Phe Ala	Glu His Asp Pro Glu Gln Pro Ala	
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 Tyr Asp Gly Lys Gly Val Gly Leu Gly Pro Gly Pro Met Gly Leu Met
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 Gly Pro Arg Gly Pro Pro Gly Ala Ala Gly Ala Pro Gly Pro Gln Gly
 100 105 110
 Phe Gln Gly Pro Ala Gly Glu Pro Gly Glu Pro Gly Gln Thr Gly Pro
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 130 135 140
 Gly His Pro Gly Lys Pro Gly Arg Pro Gly Glu Arg Gly Val Val Gly
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 Pro Gln Gly Ala Arg Gly Phe Pro Gly Thr Pro Gly Leu Pro Phe
 165 170 175
 Lys Gly Ile Arg Gly His Asn Gly Leu Asp Gly Leu Lys Gly Gln Pro
 180 185 190
 Gly Ala Pro Gly Val Lys Gly Glu Pro Gly Ala Pro Gly Glu Asn Gly
 195 200 205
 Thr Pro Gly Gln Thr Gly Ala Arg Gly Leu Pro Gly Glu Arg Gly Arg
 210 215 220
 Val Gly Ala Pro Gly Pro Ala Gly Ala Arg Gly Ser Asp Gly Ser Val
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 245 250 255
 Phe Pro Gly Ala Pro Gly Pro Lys Gly Glu Ile Gly Ala Val Gly Asn
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Leu		
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Val	Pro	Gly
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	Pro	
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	Gly	
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		Gly
		Leu
		Pro
		Gly
		Ile
		Pro
		Gly
		Pro
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		Ala
		Ala
Gly		
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		Arg
		Gly
		Leu
		Val
		Gly
Ser	Lys	Gly
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		Gly
		Asn
		Lys
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		Glu
		Pro
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		Ser
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		Gly
		Pro
		Gly
		Asn
		Gly
		Glu
		Gly
Gln		
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	Gly	Gly
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Leu Glu Asp Ala Glu Thr Lys Asn Val Ala Leu	Glu Lys Val Glu Glu		
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Leu Glu Glu His Val Ser His Leu Thr Glu	Lys Leu Leu Asp Leu Glu		
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Asn Glu Asn Met Met Arg Val Ala Glu Leu Glu Lys	Gln Leu Leu Gln		
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Arg Glu Lys Glu Leu Glu Ser Ile Lys Glu Thr	Tyr Glu Asn Thr Ser		
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His Gln Val His Thr Leu Arg Arg Leu Ile Lys	Glu Lys Glu Glu Ala		
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Phe Gln Arg Arg Cys His Leu Glu Pro Asn Val	Arg Gly Leu Glu Ser		
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Val Asp Ser Glu Ala Leu Ala Arg Val Gly	Pro Ala Glu Leu Ser Glu		
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Gly Met Pro Pro Ser Asp Leu Asp	Leu Ala Pro Ala Pro Pro Pro		
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Glu Glu Val Leu Pro Leu Pro	Pro Pro Pro Ala Pro Pro		
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Pro Pro Pro Pro Leu Pro Asp Lys Cys	Pro Pro Ala Pro Pro Leu Pro		
530	535	540	
Gly Ala Ala Pro Ser Val Val Leu Thr Val	Gly Leu Ser Ala Ile Arg		
545	550	555	560
Ile Lys Lys Pro Ile Lys Thr Lys Phe	Arg Leu Pro Val Phe Asn Trp		
565	570	575	
Thr Ala Leu Lys Pro Asn Gln Ile Ser Gly	Thr Val Phe Ser Glu Leu		
580	585	590	
Asp Asp Glu Lys Ile Leu Glu Asp Leu Asp	Lys Phe Glu Glu		
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Leu Phe Lys Thr Lys Ala Gln Gly	Pro Ala Leu Asp Leu Ile Cys Ser		
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Lys Asn Lys Thr Ala Gln Lys Ala Ala Ser	Lys Val Thr Leu Leu Glu		
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Ser Ala Glu Glu Ile Cys Arg Ala Ile His Thr	Phe Asp Leu Gln Thr		
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 Ala Glu Val Lys Leu Leu Arg Gln Tyr Glu Arg Glu Arg Gln Pro Leu
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 Glu Glu Leu Ala Ala Glu Asp Arg Phe Met Leu Leu Phe Ser Lys Val
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 Glu Arg Leu Thr Gln Arg Met Ala Gly Met Ala Phe Leu Gly Asn Phe
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 His Asp Asn Ser Val Leu Arg Asn Phe Leu Ser Thr Asn Glu Gly Lys
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 His Gly Leu Gln Gly Cys Leu Glu Ala Gln Gly Gly Gln Val Arg Val
 50 55 60
 Thr Pro Ala Cys Asn Thr Ser Leu Pro Ala Gln Arg Trp Lys Trp Val
 65 70 75 80
 Ser Arg Asn Arg Leu Phe Asn Leu Gly Thr Met Gln Cys Leu Gly Thr
 85 90 95
 Gly Trp Pro Gly Thr Asn Thr Thr Ala Ser Leu Gly Met Tyr Glu Cys
 100 105 110
 Asp Arg Glu Ala Leu Asn Leu Arg Trp His Cys Arg Thr Leu Gly Asp
 115 120 125
 Gln Leu Ser Leu Leu Leu Gly Ala Arg Thr Ser Asn Ile Ser Lys Pro
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 Gly Thr Leu Glu Arg Gly Asp Gln Thr Arg Ser Gly Gln Trp Arg Ile
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 Tyr Gly Ser Glu Glu Asp Leu Cys Ala Leu Pro Tyr His Glu Val Tyr
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 Thr Ile Gln Gly Asn Ser His Gly Lys Pro Cys Thr Ile Pro Phe Lys
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 Tyr Asp Asn Gln Trp Phe His Gly Cys Thr Ser Thr Gly Arg Glu Asp
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Gly His Leu Trp Cys Ala Thr Thr Gln Asp Tyr Gly Lys Asp Glu Arg
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 Trp Gly Phe Cys Pro Ile Lys Ser Asn Asp Cys Glu Thr Phe Trp Asp
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 Lys Asp Gln Leu Thr Asp Ser Cys Tyr Gln Phe Asn Phe Gln Ser Thr
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 Leu Ser Trp Arg Glu Ala Trp Ala Ser Cys Glu Gln Gln Gly Ala Asp
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 Pro Gly Pro Asp Pro Thr Pro Ser Leu Thr Gly Ser Cys Pro Gln Gly
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 Glu Arg Leu Gln Asp Lys Lys Ser Trp Val Gln Ala Gln Gly Ala Cys

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Glu	Ile	His	Glu	Gln	His	Trp	Phe	Trp	Ile	Gly	Leu	Asn	Arg	Arg	Asp
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 Ser Lys His Gly Gly Asn Tyr Leu Leu Phe Asn Leu Ser Glu Arg Arg
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 Pro Asp Ile Thr Lys Leu His Ala Lys Val Leu Glu Phe Gly Trp Pro
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 Asp Leu His Thr Pro Ala Leu Glu Lys Ile Cys Ser Ile Cys Lys Ala
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 Met Asp Thr Trp Leu Asn Ala Asp Pro His Asn Val Val Leu His
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 Asn Lys Gly Asn Arg Gly Arg Ile Gly Val Val Ile Ala Ala Tyr Met
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 His Tyr Ser Asn Ile Ser Ala Ser Ala Asp Gln Ala Leu Asp Arg Phe
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 Ala Met Lys Arg Phe Tyr Glu Asp Lys Ile Val Pro Ile Gly Gln Pro
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 Ser Gln Arg Arg Tyr Val His Tyr Phe Ser Gly Leu Leu Ser Gly Ser
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 Gly Ile Pro Asn Phe Glu Ser Lys Gly Gly Cys Arg Pro Phe Leu Arg
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Ile Tyr Gln Ala Met Gln Pro Val Tyr Thr Ser Gly Ile Tyr Asn Ile
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 Pro Gly Asp Ser Gln Thr Ser Val Cys Ile Thr Ile Glu Pro Gly Leu
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 Ser Pro Ala Arg Asp Val Ile Phe Arg Val Gln Phe His Thr Cys Ala
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 Ile His Asp Leu Gly Val Val Phe Gly Lys Glu Asp Leu Asp Asp Ala
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 Pro Ser Val Ser Val Asp Tyr Asn Thr Ser Asp Pro Leu Ile Arg Trp
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 Asp Ser Tyr Asp Asn Phe Ser Gly His Arg Asp Asp Gly Met Glu Glu
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 Val Val Gly His Thr Gln Gly Pro Leu Asp Gly Ser Leu Tyr Ala Lys
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Ala Trp Pro Gly Ala Ser	Pro Leu Ser Ser Gln Pro	Leu Ser Gly Ser
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Ser Arg Gln Ser His Pro	Leu Thr Gln Ser Arg Ser	Gly Tyr Ile Pro
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Ser Gly His Ser Leu Gly	Thr Pro Glu Pro Ala	Pro Arg Ala Ser Leu
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Glu Ser Val Pro Pro Gly	Arg Ser Tyr Ser Pro	Tyr Asp Tyr Gln Pro
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Ser Ser Leu Pro Ala Phe	Leu Pro Thr Thr His	Ser Pro Pro Gly Pro
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Gln Gln Pro Pro Ala Ser	Leu Pro Gly Leu Thr	Ala Gln Pro Leu Leu
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Ser Pro Lys Glu Ala Thr	Ser Asp Pro Ser Arg	Thr Pro Glu Glu Glu
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Pro Arg Ser Pro Gly Val	Arg Ser Pro Val Gln Cys	Val Ser Pro Glu
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Lys Thr Pro Leu Ser Ala	Leu Gly Leu Lys	Pro His Asn Pro Ala Asp
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Glu Asp Glu Gly Lys	Val Val Val Arg	Leu Ser Glu Glu Pro Arg Ser
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Pro Ser Pro Leu Ser Thr	Ser Ser Pro Ile Leu	Ser Ala Asp Ser Thr
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atccagccag	ggcaggagta	taatccctg	aagatggagc	ctcaggaggt	ggagtccctg	780
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caaaggacac	ggctcagcaa	ggggggacatt	gcccaagccc	gcaagctta	caagtgc	960
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ggggggccagg	tacgggcaga	cgtaagacc	aaggacctt	actccacgc	ccagtttggc	2640
gacaacaact	accctggggg	tgtggactgt	gagtgggt	ttgtggccg	ggaaggctac	2700

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gatgacacca	tcaccaaaaa	aggtttcac	ctgcataca	ccagcacaa	gttccaggac	2940
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ctgtgcatgt	cccccaggag	ccaccgtggg	gagccgatgg	ggaggggatg	gagaaacaag	3480
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ccgaaagtgt	tacagcc					3557

<210> 242
 <211> 986
 <212> PRT
 <213> Homo sapiens

<400> 242
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 20 25 30
 Ala Glu Glu Asp Asp Ser Glu Pro Leu Asn Tyr Lys Asp Pro Cys Lys
 35 40 45
 Ala Ala Ala Phe Leu Gly Asp Ile Ala Leu Asp Glu Glu Asp Leu Arg
 50 55 60
 Ala Phe Gln Val Gln Gln Ala Val Asp Leu Arg Arg His Thr Ala Arg
 65 70 75 80
 Lys Ser Ser Ile Lys Ala Ala Val Pro Gly Asn Thr Ser Thr Pro Ser
 85 90 95
 Cys Gln Ser Thr Asn Gly Gln Pro Gln Arg Gly Ala Cys Gly Arg Trp
 100 105 110
 Arg Gly Arg Ser Arg Ser Arg Arg Ala Ala Thr Ser Arg Pro Glu Arg
 115 120 125
 Val Trp Pro Asp Gly Val Ile Pro Phe Val Ile Gly Gly Asn Phe Thr
 130 135 140
 Gly Ser Gln Arg Ala Val Phe Arg Gln Ala Met Arg His Trp Glu Lys
 145 150 155 160
 His Thr Cys Val Thr Phe Leu Glu Arg Thr Asp Glu Asp Ser Tyr Ile
 165 170 175
 Val Phe Thr Tyr Arg Pro Cys Gly Cys Cys Ser Tyr Val Gly Arg Arg
 180 185 190
 Gly Gly Gly Pro Gln Ala Ile Ser Ile Gly Lys Asn Cys Asp Lys Phe
 195 200 205
 Gly Ile Val Val His Glu Leu Gly His Val Val Gly Phe Trp His Glu
 210 215 220
 His Thr Arg Pro Asp Arg Asp Arg His Val Ser Ile Val Arg Glu Asn
 225 230 235 240
 Ile Gln Pro Gly Gln Glu Tyr Asn Phe Leu Lys Met Glu Pro Gln Glu
 245 250 255
 Val Glu Ser Leu Gly Glu Thr Tyr Asp Phe Asp Ser Ile Met His Tyr
 260 265 270
 Ala Arg Asn Thr Phe Ser Arg Gly Ile Phe Leu Asp Thr Ile Val Pro
 275 280 285
 Lys Tyr Glu Val Asn Gly Val Lys Pro Pro Ile Gly Gln Arg Thr Arg
 290 295 300
 Leu Ser Lys Gly Asp Ile Ala Gln Ala Arg Lys Leu Tyr Lys Cys Pro

305	310	315	320
Ala Cys Gly Glu Thr Leu Gln Asp Ser Thr	Gly Asn Phe Ser Ser Pro		
325	330	335	
Glu Tyr Pro Asn Gly Tyr Ser Ala His Met His Cys Val Trp Arg Ile			
340	345	350	
Ser Val Thr Pro Gly Glu Lys Ile Ile Leu Asn Phe Thr Ser Leu Asp			
355	360	365	
Leu Tyr Arg Ser Arg Leu Cys Trp Tyr Asp Tyr Val Glu Val Arg Asp			
370	375	380	
Gly Phe Trp Arg Lys Ala Pro Leu Arg Gly Arg Phe Cys Gly Ser Lys			
385	390	395	400
Leu Pro Glu Pro Ile Val Ser Thr Asp Ser Arg Leu Trp Val Glu Phe			
405	410	415	
Arg Ser Ser Ser Asn Trp Val Gly Lys Gly Phe Phe Ala Val Tyr Glu			
420	425	430	
Ala Ile Cys Gly Gly Asp Val Lys Lys Asp Tyr Gly His Ile Gln Ser			
435	440	445	
Pro Asn Tyr Pro Asp Asp Tyr Arg Pro Ser Lys Val Cys Ile Trp Arg			
450	455	460	
Ile Gln Val Ser Glu Gly Phe His Val Gly Leu Thr Phe Gln Ser Phe			
465	470	475	480
Glu Ile Glu Arg His Asp Ser Cys Ala Tyr Asp Tyr Leu Glu Val Arg			
485	490	495	
Asp Gly His Ser Glu Ser Ser Thr Leu Ile Gly Arg Tyr Cys Gly Tyr			
500	505	510	
Glu Lys Pro Asp Asp Ile Lys Ser Thr Ser Ser Arg Leu Trp Leu Lys			
515	520	525	
Phe Val Ser Asp Gly Ser Ile Asn Lys Ala Gly Phe Ala Val Asn Phe			
530	535	540	
Phe Lys Glu Val Asp Glu Cys Ser Arg Pro Asn Arg Gly Gly Cys Glu			
545	550	555	560
Gln Arg Cys Leu Asn Thr Leu Gly Ser Tyr Lys Cys Ser Cys Asp Pro			
565	570	575	
Gly Tyr Glu Leu Ala Pro Asp Lys Arg Arg Cys Glu Ala Ala Cys Gly			
580	585	590	
Gly Phe Leu Thr Lys Leu Asn Gly Ser Ile Thr Ser Pro Gly Trp Pro			
595	600	605	
Lys Glu Tyr Pro Pro Asn Lys Asn Cys Ile Trp Gln Leu Val Ala Pro			
610	615	620	
Thr Gln Tyr Arg Ile Ser Leu Gln Phe Asp Phe Phe Glu Thr Glu Gly			
625	630	635	640
Asn Asp Val Cys Lys Tyr Asp Phe Val Glu Val Arg Ser Gly Leu Thr			
645	650	655	
Ala Asp Ser Lys Leu His Gly Lys Phe Cys Gly Ser Glu Lys Pro Glu			
660	665	670	
Val Ile Thr Ser Gln Tyr Asn Asn Met Arg Val Glu Phe Lys Ser Asp			
675	680	685	
Asn Thr Val Ser Lys Lys Gly Phe Lys Ala His Phe Phe Ser Asp Lys			
690	695	700	
Asp Glu Cys Ser Lys Asp Asn Gly Gly Cys Gln Gln Asp Cys Val Asn			
705	710	715	720
Thr Phe Gly Ser Tyr Glu Cys Gln Cys Arg Ser Gly Phe Val Leu His			
725	730	735	
Asp Asn Lys His Asp Cys Lys Glu Ala Gly Cys Asp His Lys Val Thr			
740	745	750	
Ser Thr Ser Gly Thr Ile Thr Ser Pro Asn Trp Pro Asp Lys Tyr Pro			
755	760	765	
Ser Lys Lys Glu Cys Thr Trp Ala Ile Ser Ser Thr Pro Gly His Arg			
770	775	780	
Val Lys Leu Thr Phe Met Glu Met Asp Ile Glu Ser Gln Pro Glu Cys			
785	790	795	800

Ala Tyr Asp His Leu Glu Val Phe Asp Gly Arg Asp Ala Lys Ala Pro
 805 810 815
 Val Leu Gly Arg Phe Cys Gly Ser Lys Lys Pro Glu Pro Val Leu Ala
 820 825 830
 Thr Gly Ser Arg Met Phe Leu Arg Phe Tyr Ser Asp Asn Ser Val Gln
 835 840 845
 Arg Lys Gly Phe Gln Ala Ser His Ala Thr Glu Cys Gly Gly Gln Val
 850 855 860
 Arg Ala Asp Val Lys Thr Lys Asp Leu Tyr Ser His Ala Gln Phe Gly
 865 870 875 880
 Asp Asn Asn Tyr Pro Gly Gly Val Asp Cys Glu Trp Val Ile Val Ala
 885 890 895
 Glu Glu Gly Tyr Gly Val Glu Leu Val Phe Gln Thr Phe Glu Val Glu
 900 905 910
 Glu Glu Thr Asp Cys Gly Tyr Asp Tyr Met Glu Leu Phe Asp Gly Tyr
 915 920 925
 Asp Ser Thr Ala Pro Arg Leu Gly Arg Tyr Cys Gly Ser Gly Pro Pro
 930 935 940
 Glu Glu Val Tyr Ser Ala Gly Asp Ser Val Leu Val Lys Phe His Ser
 945 950 955 960
 Asp Asp Thr Ile Thr Lys Lys Gly Phe His Leu Arg Tyr Thr Ser Thr
 965 970 975
 Lys Phe Gln Asp Thr Leu His Ser Arg Lys
 980 985

<210> 243
 <211> 5015
 <212> DNA
 <213> Homo sapiens

<400> 243

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ccgcgctcc	cgcgccctc	ctcgggctcc	acgcgttgc	ccccgcagag	gcagccctct	240
ccaggagcgg	ggccctgcac	accatggccc	ccgggtgggc	aggggtcggc	gccgcgcgtgc	300
gcccggct	ggcgtggc	tgcggctgg	cgagcgttgc	gagtggggct	ccagccgtcg	360
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gcccgggtcc	tcggggcatc	ccccgcacgc	ctgagcgttgc	tgacctggac	agaaaataata	480
tcaccaggat	caccaagatg	gacttcgt	ggctcaagaa	cctccgagtc	ttgcacatctgg	540
aagacaacca	ggtcagcg	atcgagagag	gccccttcca	ggacctgaag	cagctagagc	600
gactgcgcct	gaacaagaat	aagctgcaag	tccttccaga	attgttttc	cagagcacgc	660
cgaagctcac	cagactagat	tttagtggaaa	accagatcca	ggggatccc	aggaaggcgt	720
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aagatggagc	cttccgagcg	ctgcgcatt	tggagatcct	taccctcaac	aacaacaaca	840
tcagtcgc	cctggtcacc	agcttcaacc	acatggccaa	gatccgaact	ctgcgcctcc	900
actccaaacca	cctgtactgc	gactgcacc	tggcctggct	ctcgattgg	ctgcgacagc	960
gacggacagt	tggccagttc	acactctgc	tggctctgt	gcatttgggg	ggcttcaacg	1020
tggcggatgt	gcagaagaag	gagtacgt	gcccagcccc	ccactcgagg	cccccatcct	1080
gcaatgccaa	ctccatctcc	tgcccttcgc	cctgcacgtg	cagcaataac	atcggtggact	1140
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gccttagaaca	gaactccatc	aaagccatcc	ctgcaggagc	cttcacccag	tacaagaaac	1260
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gcctgcgggt	gaacacgttt	caggacgtgc	agaacactaa	cttgctctcc	ctgtatgaca	1500
acaagctgca	gaccatcagc	aaggggctt	tgccttctt	gcagtcctatc	cagacactcc	1560
acttagccca	aaacccattt	gtgtgcact	gccacttgc	cgacttcatc	1620	
aggacaaccc	catcgagaca	agcggggccc	gctgcagcag	cccgcgcggc	ctcgccaaca	1680
agcgcacatcag	ccagatcaag	agcaagaagt	tccgctgtc	aggctccgag	gattaccgc	1740
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<210> 244
<211> 1523
<212> PRT
<213> *Homo sapiens*

<400> 244
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 20 25 30
 Ala Cys Pro Thr Lys Cys Thr Cys Ser Ala Ala Ser Val Asp Cys His
 35 40 45
 Gly Leu Gly Leu Arg Ala Val Pro Arg Gly Ile Pro Arg Asn Ala Glu
 50 55 60
 Arg Leu Asp Leu Asp Arg Asn Asn Ile Thr Arg Ile Thr Lys Met Asp
 65 70 75 80
 Phe Ala Gly Leu Lys Asn Leu Arg Val Leu His Leu Glu Asp Asn Gln
 85 90 95
 Val Ser Val Ile Glu Arg Gly Ala Phe Gln Asp Leu Lys Gln Leu Glu
 100 105 110
 Arg Leu Arg Leu Asn Lys Asn Lys Leu Gln Val Leu Pro Glu Leu Leu
 115 120 125
 Phe Gln Ser Thr Pro Lys Leu Thr Arg Leu Asp Leu Ser Glu Asn Gln
 130 135 140
 Ile Gln Gly Ile Pro Arg Lys Ala Phe Arg Gly Ile Thr Asp Val Lys
 145 150 155 160
 Asn Leu Gln Leu Asp Asn Asn His Ile Ser Cys Ile Glu Asp Gly Ala
 165 170 175
 Phe Arg Ala Leu Arg Asp Leu Glu Ile Leu Thr Leu Asn Asn Asn Asn
 180 185 190
 Ile Ser Arg Ile Leu Val Thr Ser Phe Asn His Met Pro Lys Ile Arg
 195 200 205
 Thr Leu Arg Leu His Ser Asn His Leu Tyr Cys Asp Cys His Leu Ala
 210 215 220
 Trp Leu Ser Asp Trp Leu Arg Gln Arg Arg Thr Val Gly Gln Phe Thr
 225 230 235 240
 Leu Cys Met Ala Pro Val His Leu Arg Gly Phe Asn Val Ala Asp Val
 245 250 255
 Gln Lys Lys Glu Tyr Val Cys Pro Ala Pro His Ser Glu Pro Pro Ser
 260 265 270
 Cys Asn Ala Asn Ser Ile Ser Cys Pro Ser Pro Cys Thr Cys Ser Asn
 275 280 285
 Asn Ile Val Asp Cys Arg Gly Lys Gly Leu Met Glu Ile Pro Ala Asn
 290 295 300
 Leu Pro Glu Gly Ile Val Glu Ile Arg Leu Glu Gln Asn Ser Ile Lys
 305 310 315 320
 Ala Ile Pro Ala Gly Ala Phe Thr Gln Tyr Lys Lys Leu Lys Arg Ile
 325 330 335
 Asp Ile Ser Lys Asn Gln Ile Ser Asp Ile Ala Pro Asp Ala Phe Gln
 340 345 350
 Gly Leu Lys Ser Leu Thr Ser Leu Val Leu Tyr Gly Asn Lys Ile Thr
 355 360 365
 Glu Ile Ala Lys Gly Leu Phe Asp Gly Leu Val Ser Leu Gln Leu Leu
 370 375 380
 Leu Leu Asn Ala Asn Lys Ile Asn Cys Leu Arg Val Asn Thr Phe Gln
 385 390 395 400
 Asp Leu Gln Asn Leu Asn Leu Leu Ser Leu Tyr Asp Asn Lys Leu Gln
 405 410 415
 Thr Ile Ser Lys Gly Leu Phe Ala Pro Leu Gln Ser Ile Gln Thr Leu
 420 425 430
 His Leu Ala Gln Asn Pro Phe Val Cys Asp Cys His Leu Lys Trp Leu
 435 440 445
 Ala Asp Tyr Leu Gln Asp Asn Pro Ile Glu Thr Ser Gly Ala Arg Cys
 450 455 460
 Ser Ser Pro Arg Arg Leu Ala Asn Lys Arg Ile Ser Gln Ile Lys Ser

465	470	475	480
Lys Lys Phe Arg Cys Ser Gly Ser Glu Asp Tyr Arg Ser Arg Phe Ser			
485	490	495	
Ser Glu Cys Phe Met Asp Leu Val Cys Pro Glu Lys Cys Arg Cys Glu			
500	505	510	
Gly Thr Ile Val Asp Cys Ser Asn Gln Lys Leu Val Arg Ile Pro Ser			
515	520	525	
His Leu Pro Glu Tyr Val Thr Asp Leu Arg Leu Asn Asp Asn Glu Val			
530	535	540	
Ser Val Leu Glu Ala Thr Gly Ile Phe Lys Lys Leu Pro Asn Leu Arg			
545	550	555	560
Lys Ile Asn Leu Ser Asn Asn Lys Ile Lys Glu Val Arg Glu Gly Ala			
565	570	575	
Phe Asp Gly Ala Ala Ser Val Gln Glu Leu Met Leu Thr Gly Asn Gln			
580	585	590	
Leu Glu Thr Val His Gly Arg Val Phe Arg Gly Leu Ser Gly Leu Lys			
595	600	605	
Thr Leu Met Leu Arg Ser Asn Leu Ile Gly Cys Val Ser Asn Asp Thr			
610	615	620	
Phe Ala Gly Leu Ser Ser Val Arg Leu Leu Ser Leu Tyr Asp Asn Arg			
625	630	635	640
Ile Thr Thr Ile Thr Pro Gly Ala Phe Thr Thr Leu Val Ser Leu Ser			
645	650	655	
Thr Ile Asn Leu Leu Ser Asn Pro Phe Asn Cys Asn Cys His Leu Ala			
660	665	670	
Trp Leu Gly Lys Trp Leu Arg Lys Arg Arg Ile Val Ser Gly Asn Pro			
675	680	685	
Arg Cys Gln Lys Pro Phe Phe Leu Lys Glu Ile Pro Ile Gln Asp Val			
690	695	700	
Ala Ile Gln Asp Phe Thr Cys Asp Gly Asn Glu Ser Ser Cys Gln			
705	710	715	720
Leu Ser Pro Arg Cys Pro Glu Gln Cys Thr Cys Met Glu Thr Val Val			
725	730	735	
Arg Cys Ser Asn Lys Gly Leu Arg Ala Leu Pro Arg Gly Met Pro Lys			
740	745	750	
Asp Val Thr Glu Leu Tyr Leu Glu Gly Asn His Leu Thr Ala Val Pro			
755	760	765	
Arg Glu Leu Ser Ala Leu Arg His Leu Thr Leu Ile Asp Leu Ser Asn			
770	775	780	
Asn Ser Ile Ser Met Leu Thr Asn Tyr Thr Phe Ser Asn Met Ser His			
785	790	795	800
Leu Ser Thr Leu Ile Leu Ser Tyr Asn Arg Leu Arg Cys Ile Pro Val			
805	810	815	
His Ala Phe Asn Gly Leu Arg Ser Leu Arg Val Leu Thr Leu His Gly			
820	825	830	
Asn Asp Ile Ser Ser Val Pro Glu Gly Ser Phe Asn Asp Leu Thr Ser			
835	840	845	
Leu Ser His Leu Ala Leu Gly Thr Asn Pro Leu His Cys Asp Cys Ser			
850	855	860	
Leu Arg Trp Leu Ser Glu Trp Val Lys Ala Gly Tyr Lys Glu Pro Gly			
865	870	875	880
Ile Ala Arg Cys Ser Ser Pro Glu Pro Met Ala Asp Arg Leu Leu Leu			
885	890	895	
Thr Thr Pro Thr His Arg Phe Gln Cys Lys Gly Pro Val Asp Ile Asn			
900	905	910	
Ile Val Ala Lys Cys Asn Ala Cys Leu Ser Ser Pro Cys Lys Asn Asn			
915	920	925	
Gly Thr Cys Thr Gln Asp Pro Val Glu Leu Tyr Arg Cys Ala Cys Pro			
930	935	940	
Tyr Ser Tyr Lys Gly Lys Asp Cys Thr Val Pro Ile Asn Thr Cys Ile			
945	950	955	960

Gln Asn Pro Cys Gln His Gly Gly Thr Cys His Leu Ser Asp Ser His
 965 970 975
 Lys Asp Gly Phe Ser Cys Ser Cys Pro Leu Gly Phe Glu Gly Gln Arg
 980 985 990
 Cys Glu Ile Asn Pro Asp Asp Cys Glu Asp Asn Asp Cys Glu Asn Asn
 995 1000 1005
 Ala Thr Cys Val Asp Gly Ile Asn Asn Tyr Val Cys Ile Cys Pro Pro
 1010 1015 1020
 Asn Tyr Thr Gly Glu Leu Cys Asp Glu Val Ile Asp His Cys Val Pro
 1025 1030 1035 1040
 Glu Leu Asn Leu Cys Gln His Glu Ala Lys Cys Ile Pro Leu Asp Lys
 1045 1050 1055
 Gly Phe Ser Cys Glu Cys Val Pro Gly Tyr Ser Gly Lys Leu Cys Glu
 1060 1065 1070
 Thr Asp Asn Asp Asp Cys Val Ala His Lys Cys Arg His Gly Ala Gln
 1075 1080 1085
 Cys Val Asp Thr Ile Asn Gly Tyr Thr Cys Thr Cys Pro Gln Gly Phe
 1090 1095 1100
 Ser Gly Pro Phe Cys Glu His Pro Pro Pro Met Val Leu Leu Gln Thr
 1105 1110 1115 1120
 Ser Pro Cys Asp Gln Tyr Glu Cys Gln Asn Gly Ala Gln Cys Ile Val
 1125 1130 1135
 Val Gln Gln Glu Pro Thr Cys Arg Cys Pro Pro Gly Phe Ala Gly Pro
 1140 1145 1150
 Arg Cys Glu Lys Leu Ile Thr Val Asn Phe Val Gly Lys Asp Ser Tyr
 1155 1160 1165
 Val Glu Leu Ala Ser Ala Lys Val Arg Pro Gln Ala Asn Ile Ser Leu
 1170 1175 1180
 Gln Val Ala Thr Asp Lys Asp Asn Gly Ile Leu Leu Tyr Lys Gly Asp
 1185 1190 1195 1200
 Asn Asp Pro Leu Ala Leu Glu Leu Tyr Gln Gly His Val Arg Leu Val
 1205 1210 1215
 Tyr Asp Ser Leu Ser Ser Pro Pro Thr Thr Val Tyr Ser Val Glu Thr
 1220 1225 1230
 Val Asn Asp Gly Gln Phe His Ser Val Glu Leu Val Thr Leu Asn Gln
 1235 1240 1245
 Thr Leu Asn Leu Val Val Asp Lys Gly Thr Pro Lys Ser Leu Gly Lys
 1250 1255 1260
 Leu Gln Lys Gln Pro Ala Val Gly Ile Asn Ser Pro Leu Tyr Leu Gly
 1265 1270 1275 1280
 Gly Ile Pro Thr Ser Thr Gly Leu Ser Ala Leu Arg Gln Gly Thr Asp
 1285 1290 1295
 Arg Pro Leu Gly Gly Phe His Gly Cys Ile His Glu Val Arg Ile Asn
 1300 1305 1310
 Asn Glu Leu Gln Asp Phe Lys Ala Leu Pro Pro Gln Ser Leu Gly Val
 1315 1320 1325
 Ser Pro Gly Cys Lys Ser Cys Thr Val Cys Lys His Gly Leu Cys Arg
 1330 1335 1340
 Ser Val Glu Lys Asp Ser Val Val Cys Glu Cys Arg Pro Gly Trp Thr
 1345 1350 1355 1360
 Gly Pro Leu Cys Asp Gln Glu Ala Arg Asp Pro Cys Leu Gly His Arg
 1365 1370 1375
 Cys His His Gly Lys Cys Val Ala Thr Gly Thr Ser Tyr Met Cys Lys
 1380 1385 1390
 Cys Ala Glu Gly Tyr Gly Gly Asp Leu Cys Asp Asn Lys Asn Asp Ser
 1395 1400 1405
 Ala Asn Ala Cys Ser Ala Phe Lys Cys His His Gly Gln Cys His Ile
 1410 1415 1420
 Ser Asp Gln Gly Glu Pro Tyr Cys Leu Cys Gln Pro Gly Phe Ser Gly
 1425 1430 1435 1440
 Glu His Cys Gln Gln Glu Asn Pro Cys Leu Gly Gln Val Val Arg Glu

	1445	1450	1455
Val Ile Arg Arg Gln Lys Gly Tyr Ala Ser Cys Ala Thr Ala Ser Lys			
1460	1465	1470	
Val Pro Ile Met Glu Cys Arg Gly Gly Cys Gly Pro Gln Cys Cys Gln			
1475	1480	1485	
Pro Thr Arg Ser Lys Arg Arg Lys Tyr Val Phe Gln Cys Thr Asp Gly			
1490	1495	1500	
Ser Ser Phe Val Glu Glu Val Glu Arg His Leu Glu Cys Gly Cys Leu			
1505	1510	1515	1520
Ala Cys Ser			

<210> 245
 <211> 4227
 <212> DNA
 <213> Homo sapiens

<400> 245

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<210> 246

<211> 818

<212> PRT

<213> Homo sapiens

<400> 246

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Lys	Leu	Thr	Ala	Cys	Leu	Gln	Gly	Gln	Gly	Ala	Glu	Ala	Asp	Lys	
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Leu	Cys	Gly	Glu	Thr	Glu	Asp	Lys	Leu	Ala	Gln	Glu	Leu	Ile	His	Phe
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Glu	Leu	Gln	Val	Glu	Arg	Asp	Val	Ile	Glu	Pro	Leu	Phe	Leu	Leu	Ala
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Glu	Val	Glu	Ile	Pro	Asn	Ile	Gln	Lys	Gln	Arg	Lys	His	Leu	Ala	Lys
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Leu	Val	Leu	Asp	Met	Asp	Ser	Ser	Arg	Thr	Arg	Trp	Gln	Gln	Thr	Ser
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Lys	Ser	Ser	Gly	Leu	Ser	Ser	Ser	Leu	Gln	Pro	Ala	Gly	Ala	Lys	Ala
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Asp	Ala	Leu	Arg	Glu	Glu	Met	Glu	Glu	Ala	Ala	Asn	Arg	Val	Glu	Ile
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Cys	Arg	Asp	Gln	Leu	Ser	Ala	Asp	Met	Tyr	Ser	Phe	Val	Ala	Lys	Glu
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Ile Asp Tyr Ala Asn Tyr Phe Gln Thr Leu Ile Glu Val Gln Ala Glu
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 Tyr His Arg Lys Ser Leu Thr Leu Leu Gln Ala Val Leu Pro Gln Ile
 225 230 235 240
 Lys Ala Gln Gln Glu Ala Trp Val Glu Lys Pro Ser Phe Gly Lys Pro
 245 250 255
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 Glu Ala Cys Val Thr Met Leu Leu Glu Cys Gly Met Gln Glu Glu Gly
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 Leu Phe Arg Val Ala Pro Ser Ala Ser Lys Leu Lys Lys Leu Lys Ala
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 Pro Leu Met Thr Phe Glu Leu Tyr Asp Glu Trp Ile Gln Ala Ser Asn
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 Lys Leu Pro Lys Ala Asn His Asn Asn Ile Arg Tyr Leu Ile Lys Phe
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 Asn Met Ala Ile Val Leu Gly Pro Asn Leu Leu Trp Pro Gln Ala Glu
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 Gly Asn Ile Thr Glu Met Met Thr Thr Val Ser Leu Gln Ile Val Gly
 420 425 430
 Ile Ile Glu Pro Ile Ile Gln His Ala Asp Trp Phe Phe Pro Gly Glu
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 Ile Glu Phe Asn Ile Thr Gly Asn Tyr Gly Ser Pro Val His Val Asn
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 His Asn Ala Asn Tyr Ser Ser Met Pro Ser Pro Asp Met Asp Pro Ala
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 Asp Arg Arg Gln Pro Glu Gln Ala Arg Arg Pro Leu Ser Val Ala Thr
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 Asp Asn Met Met Leu Glu Phe Tyr Lys Lys Asp Gly Leu Arg Lys Ile
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 Gln Ser Met Gly Val Arg Val Met Asp Thr Asn Trp Val Ala Arg Arg
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 Lys Glu Leu Ser Pro Gly Ser Ala Gln Lys Gly Ser Pro Gly Ser Ser
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 Pro His Thr Leu Arg Lys Val Ser Lys Lys Leu Ala Pro Ile Pro Pro
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 Lys Val Pro Phe Gly Gln Pro Gly Ala Met Ala Asp Gln Ser Ala Gly
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 Gln Leu Ser Pro Val Ser Leu Ser Pro Thr Pro Pro Ser Thr Pro Ser
 675 680 685
 Pro Tyr Gly Leu Ser Tyr Pro Gln Gly Tyr Ser Leu Ala Ser Gly Gln

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705	710	715
Ser Thr Leu Ser Lys Ser Arg Pro Thr Pro Lys Pro Arg Gln Arg Pro		720
725	730	735
Thr Leu Pro Pro Pro Gln Pro Pro Thr Val Asn Leu Ser Ala Ser Ser		
740	745	750
Pro Gln Ser Thr Glu Ala Pro Met Leu Asp Gly Met Ser Pro Gly Glu		
755	760	765
Ser Met Ser Thr Asp Leu Val His Phe Asp Ile Pro Ser Ile His Ile		
770	775	780
Glu Leu Gly Ser Thr Leu Arg Leu Ser Pro Leu Glu His Met Arg Arg		
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<210> 247
 <211> 2850
 <212> DNA
 <213> Homo sapiens

<400> 247

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<210> 248
 <211> 173
 <212> PRT
 <213> Homo sapiens

<400> 248

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Phe	Ile	Glu	Asp	Leu	Lys	Lys	Tyr	Gly	Ala	Thr	Thr	Val	Val	Arg	Val
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Cys	Glu	Val	Thr	Tyr	Asp	Lys	Thr	Pro	Leu	Glu	Lys	Asp	Gly	Ile	Thr
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Ala	Ile	Gln	Phe	Ile	Arg	Gln	Lys	Arg	Arg	Gly	Ala	Ile	Asn	Ser	Lys
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Gln	Leu	Thr	Tyr	Leu	Glu	Lys	Tyr	Arg	Pro	Lys	Gln	Arg	Leu	Arg	Phe
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 <212> DNA
 <213> Homo sapiens

<400> 249

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ctcagttacat gaatatattc agacctcagc ctgcattgtcg tgataagtt aacgttagcc
gacaataagtg cattattctc cagttgtgaa tctaatcata agagatggta actttcaaaa
gaccatttt ttaatgtgaa tgtagtaaac attttatcc aagtgaatac cacattca
tgaggacatt ggaatgaaa aatgccagag cttaaagctgt gctgtaccca actggattgt
ggatccttc agtatcaact aggcacaatt ctggactgca ttctgacatc agccaagtca
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<210> 250
<211> 1179
<212> PRT
<213> *Homo sapiens*

<400> 250
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 Trp Leu Leu Thr Val Val Leu Arg Cys Cys Val Ser Phe Asn Val Asp

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35	40	45
Tyr Thr Val Gln Gln Tyr Glu Asn Glu Glu Gly Lys Trp	Val Leu Ile	
50	55	60
Gly Ser Pro Leu Val Gly Gln Pro Lys Asn Arg Thr Gly Asp	Val Tyr	
65	70	75
Lys Cys Pro Val Gly Arg Gly Glu Ser Leu Pro Cys Val Lys	Leu Asp	
85	90	95
Leu Pro Val Asn Thr Ser Ile Pro Asn Val Thr Glu Val Lys	Glu Asn	
100	105	110
Met Thr Phe Gly Ser Thr Leu Val Thr Asn Pro Asn Gly	Gly Phe Leu	
115	120	125
Ala Cys Gly Pro Leu Tyr Ala Tyr Arg Cys Gly His Leu His	Tyr Thr	
130	135	140
Thr Gly Ile Cys Ser Asp Val Ser Pro Thr Phe Gln Val Val	Asn Ser	
145	150	155
Ile Ala Pro Val Gln Glu Cys Ser Thr Gln Leu Asp Ile Val	Ile Val	
165	170	175
Leu Asp Gly Ser Asn Ser Ile Tyr Pro Trp Asp Ser Val Thr	Ala Phe	
180	185	190
Leu Asn Asp Leu Leu Lys Arg Met Asp Ile Gly Pro Lys Gln	Thr Gln	
195	200	205
Val Gly Ile Val Gln Tyr Gly Glu Asn Val Thr His Glu Phe	Asn Leu	
210	215	220
Asn Lys Tyr Ser Ser Thr Glu Glu Val Leu Val Ala Ala Lys	Lys Ile	
225	230	235
Val Gln Arg Gly Gly Arg Gln Thr Met Thr Ala Leu Gly Thr	Asp Thr	
245	250	255
Ala Arg Lys Glu Ala Phe Thr Glu Ala Arg Gly Ala Arg	Gly Val	
260	265	270
Lys Lys Val Met Val Ile Val Thr Asp Gly Glu Ser His Asp	Asn His	
275	280	285
Arg Leu Lys Lys Val Ile Gln Asp Cys Glu Asp Glu Asn	Ile Gln Arg	
290	295	300
Phe Ser Ile Ala Ile Leu Gly Ser Tyr Asn Arg Gly Asn Leu	Ser Thr	
305	310	315
Glu Lys Phe Val Glu Glu Ile Lys Ser Ile Ala Ser Glu Pro	Thr Glu	
325	330	335
Lys His Phe Phe Asn Val Ser Asp Glu Leu Ala Leu Val Thr	Ile Val	
340	345	350
Lys Thr Leu Gly Glu Arg Ile Phe Ala Leu Glu Ala Thr	Ala Asp Gln	
355	360	365
Ser Ala Ala Ser Phe Glu Met Glu Met Ser Gln Thr Gly	Phe Ser Ala	
370	375	380
His Tyr Ser Gln Asp Trp Val Met Leu Gly Ala Val Gly	Ala Tyr Asp	
385	390	395
Trp Asn Gly Thr Val Val Met Gln Lys Ala Ser Gln Ile	Ile Ile Pro	
405	410	415
Arg Asn Thr Thr Phe Asn Val Glu Ser Thr Lys Lys Asn	Glu Pro Leu	
420	425	430
Ala Ser Tyr Leu Gly Tyr Thr Val Asn Ser Ala Thr Ala	Ser Ser Gly	
435	440	445
Asp Val Leu Tyr Ile Ala Gly Gln Pro Arg Tyr Asn His	Thr Gly Gln	
450	455	460
Val Ile Ile Tyr Arg Met Glu Asp Gly Asn Ile Lys Ile	Leu Gln Thr	
465	470	475
Leu Ser Gly Glu Gln Ile Gly Ser Tyr Phe Gly Ser Ile	Leu Thr Thr	
485	490	495
Thr Asp Ile Asp Lys Asp Ser Asn Thr Asp Ile Leu Leu	Val Gly Ala	
500	505	510

Pro Met Tyr Met Gly Thr Glu Lys Glu Glu Gln Gly Lys Val Tyr Val
 515 520 525
 Tyr Ala Leu Asn Gln Thr Arg Phe Glu Tyr Gln Met Ser Leu Glu Pro
 530 535 540
 Ile Lys Gln Thr Cys Cys Ser Ser Arg Gln His Asn Ser Cys Thr Thr
 545 550 555 560
 Glu Asn Lys Asn Glu Pro Cys Gly Ala Arg Phe Gly Thr Ala Ile Ala
 565 570 575
 Ala Val Lys Asp Leu Asn Leu Asp Gly Phe Asn Asp Ile Val Ile Gly
 580 585 590
 Ala Pro Leu Glu Asp Asp His Gly Gly Ala Val Tyr Ile Tyr His Gly
 595 600 605
 Ser Gly Lys Thr Ile Arg Lys Glu Tyr Ala Gln Arg Ile Pro Ser Gly
 610 615 620
 Gly Asp Gly Lys Thr Leu Lys Phe Phe Gly Gln Ser Ile His Gly Glu
 625 630 635 640
 Met Asp Leu Asn Gly Asp Gly Leu Thr Asp Val Thr Ile Gly Gly Leu
 645 650 655
 Gly Gly Ala Ala Leu Phe Trp Ser Arg Asp Val Ala Val Val Lys Val
 660 665 670
 Thr Met Asn Phe Glu Pro Asn Lys Val Asn Ile Gln Lys Lys Asn Cys
 675 680 685
 His Met Glu Gly Lys Glu Thr Val Cys Ile Asn Ala Thr Val Cys Phe
 690 695 700
 Glu Val Lys Leu Lys Ser Lys Glu Asp Thr Ile Tyr Glu Ala Asp Leu
 705 710 715 720
 Gln Tyr Arg Val Thr Leu Asp Ser Leu Arg Gln Ile Ser Arg Ser Phe
 725 730 735
 Phe Ser Gly Thr Gln Glu Arg Lys Val Gln Arg Asn Ile Thr Val Arg
 740 745 750
 Lys Ser Glu Cys Thr Lys His Ser Phe Tyr Met Leu Asp Lys His Asp
 755 760 765
 Phe Gln Asp Ser Val Arg Ile Thr Leu Asp Phe Asn Leu Thr Asp Pro
 770 775 780
 Glu Asn Gly Pro Val Leu Asp Asp Ser Leu Pro Asn Ser Val His Glu
 785 790 795 800
 Tyr Ile Pro Phe Ala Lys Asp Cys Gly Asn Lys Glu Lys Cys Ile Ser
 805 810 815
 Asp Leu Ser Leu His Val Ala Thr Thr Glu Lys Asp Leu Leu Ile Val
 820 825 830
 Arg Ser Gln Asn Asp Lys Phe Asn Val Ser Leu Thr Val Lys Asn Thr
 835 840 845
 Lys Asp Ser Ala Tyr Asn Thr Arg Thr Ile Val His Tyr Ser Pro Asn
 850 855 860
 Leu Val Phe Ser Gly Ile Glu Ala Ile Gln Lys Asp Ser Cys Glu Ser
 865 870 875 880
 Asn His Asn Ile Thr Cys Lys Val Gly Tyr Pro Phe Leu Arg Arg Gly
 885 890 895
 Glu Met Val Thr Phe Lys Ile Leu Phe Gln Phe Asn Thr Ser Tyr Leu
 900 905 910
 Met Glu Asn Val Thr Ile Tyr Leu Ser Ala Thr Ser Asp Ser Glu Glu
 915 920 925
 Pro Pro Glu Thr Leu Ser Asp Asn Val Val Asn Ile Ser Ile Pro Val
 930 935 940
 Lys Tyr Glu Val Gly Leu Gln Phe Tyr Ser Ser Ala Ser Glu Tyr His
 945 950 955 960
 Ile Ser Ile Ala Ala Asn Glu Thr Val Pro Glu Val Ile Asn Ser Thr
 965 970 975
 Glu Asp Ile Gly Asn Glu Ile Asn Ile Phe Tyr Leu Ile Arg Lys Ser
 980 985 990
 Gly Ser Phe Pro Met Pro Glu Leu Lys Leu Ser Ile Ser Phe Pro Asn

995	1000	1005
Met Thr Ser Asn Gly Tyr Pro Val Leu Tyr Pro	Thr Gly Leu Ser Ser	
1010	1015	1020
Ser Glu Asn Ala Asn Cys Arg Pro His Ile Phe	Glu Asp Pro Phe Ser	
1025	1030	1035
Ile Asn Ser Gly Lys Lys Met Thr Thr Ser Thr	Asp His Leu Lys Arg	1040
1045		1055
Gly Thr Ile Leu Asp Cys Asn Thr Cys Lys	Phe Ala Thr Ile Thr Cys	
1060	1065	1070
Asn Leu Thr Ser Ser Asp Ile Ser Gln Val Asn	Val Ser Leu Ile Leu	
1075	1080	1085
Trp Lys Pro Thr Phe Ile Lys Ser Tyr Phe Ser	Ser Leu Asn Leu Thr	
1090	1095	1100
Ile Arg Gly Glu Leu Arg Ser Glu Asn Ala Ser	Leu Val Leu Ser Ser	
1105	1110	1115
Ser Asn Gln Lys Arg Glu Leu Ala Ile Gln Ile	Ser Lys Asp Gly Leu	1120
1125	1130	1135
Pro Gly Arg Val Pro Leu Trp Val Ile Leu Leu	Ser Ala Phe Ala Gly	
1140	1145	1150
Leu Leu Leu Met Leu Leu Ile Leu Ala Leu Trp	Lys Ile Gly Phe	
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<210> 251
 <211> 5010
 <212> DNA
 <213> Homo sapiens

<400> 251

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gggtttcctg	aatgtcaagg	acctgagggg	ccacagggac	caccaggaca	aaaggggtgat	240
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ccttctggaa	ccaaaattct	ttaccacggg	tactcttgc	tctacgtgca	aggcaatgaa
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<210> 252
<211> 1669
<212> PRT
<213> *Homo sapiens*

<400> 252
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 Gly Ser Gly Cys Gly Lys Cys Asp Cys His Gly Val Lys Gly Gln Lys
 35 40 45
 Gly Glu Arg Gly Leu Pro Gly Leu Gln Gly Val Ile Gly Phe Pro Gly
 50 55 60
 Met Gln Gly Pro Glu Gly Pro Gln Gly Pro Pro Gly Gln Lys Gly Asp
 65 70 75 80
 Thr Gly Glu Pro Gly Leu Pro Gly Thr Lys Gly Thr Arg Gly Pro Pro
 85 90 95
 Gly Ala Ser Gly Tyr Pro Gly Asn Pro Gly Leu Pro Gly Ile Pro Gly
 100 105 110
 Gln Asp Gly Pro Pro Gly Pro Pro Gly Ile Pro Gly Cys Asn Gly Thr
 115 120 125
 Lys Gly Glu Arg Gly Pro Leu Gly Pro Pro Gly Leu Pro Gly Phe Ala
 130 135 140
 Gly Asn Pro Gly Pro Pro Gly Leu Pro Gly Met Lys Gly Asp Pro Gly
 145 150 155 160
 Glu Ile Leu Gly His Val Pro Gly Met Leu Leu Lys Gly Glu Arg Gly
 165 170 175
 Phe Pro Gly Ile Pro Gly Thr Pro Gly Pro Pro Gly Leu Pro Gly Leu
 180 185 190
 Gln Gly Pro Val Gly Pro Pro Gly Phe Thr Gly Pro Pro Gly Pro Pro
 195 200 205
 Gly Pro Pro Gly Pro Pro Gly Glu Lys Gly Gln Met Gly Leu Ser Phe
 210 215 220
 Gln Gly Pro Lys Gly Asp Lys Gly Asp Gln Gly Val Ser Gly Pro Pro
 225 230 235 240
 Gly Val Pro Gly Gln Ala Gln Val Gln Glu Lys Gly Asp Phe Ala Thr
 245 250 255
 Lys Gly Glu Lys Gly Gln Lys Gly Glu Pro Gly Phe Gln Gly Met Pro
 260 265 270
 Gly Val Gly Glu Lys Gly Glu Pro Gly Lys Pro Gly Pro Arg Gly Lys
 275 280 285
 Pro Gly Lys Asp Gly Asp Lys Gly Glu Lys Gly Ser Pro Gly Phe Pro
 290 295 300
 Gly Glu Pro Gly Tyr Pro Gly Leu Ile Gly Arg Gln Gly Pro Gln Gly
 305 310 315 320
 Glu Lys Gly Glu Ala Gly Pro Pro Gly Pro Pro Gly Ile Val Ile Gly
 325 330 335
 Thr Gly Pro Leu Gly Glu Lys Gly Glu Arg Gly Tyr Pro Gly Thr Pro
 340 345 350
 Gly Pro Arg Gly Glu Pro Gly Pro Lys Gly Phe Pro Gly Leu Pro Gly
 355 360 365
 Gln Pro Gly Pro Pro Gly Leu Pro Val Pro Gly Gln Ala Gly Ala Pro
 370 375 380
 Gly Phe Pro Gly Glu Arg Gly Glu Lys Gly Asp Arg Gly Phe Pro Gly
 385 390 395 400
 Thr Ser Leu Pro Gly Pro Ser Gly Arg Asp Gly Leu Pro Gly Pro Pro
 405 410 415
 Gly Ser Pro Gly Pro Pro Gly Gln Pro Gly Tyr Thr Asn Gly Ile Val
 420 425 430
 Glu Cys Gln Pro Gly Pro Pro Gly Asp Gln Gly Pro Pro Gly Ile Pro
 435 440 445
 Gly Gln Pro Gly Phe Ile Gly Glu Ile Gly Glu Lys Gly Gln Lys Gly
 450 455 460
 Glu Ser Cys Leu Ile Cys Asp Ile Asp Gly Tyr Arg Gly Pro Pro Gly
 465 470 475 480

Pro Gln Gly Pro Pro Gly Glu Ile Gly Phe Pro Gly Gln Pro Gly Ala
 485 490 495
 Lys Gly Asp Arg Gly Leu Pro Gly Arg Asp Gly Val Ala Gly Val Pro
 500 505 510
 Gly Pro Gln Gly Thr Pro Gly Leu Ile Gly Gln Pro Gly Ala Lys Gly
 515 520 525
 Glu Pro Gly Glu Phe Tyr Phe Asp Leu Arg Leu Lys Gly Asp Lys Gly
 530 535 540
 Asp Pro Gly Phe Pro Gly Gln Pro Gly Met Pro Gly Arg Ala Gly Ser
 545 550 555 560
 Pro Gly Arg Asp Gly His Pro Gly Leu Pro Gly Pro Lys Gly Ser Pro
 565 570 575
 Gly Ser Val Gly Leu Lys Gly Glu Arg Gly Pro Pro Gly Val Gly
 580 585 590
 Phe Pro Gly Ser Arg Gly Asp Thr Gly Pro Pro Gly Pro Pro Gly Tyr
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 Gly Pro Gly Ser Pro Gly Leu Pro Gly Pro Lys Gly Glu Pro Gly Lys
 625 630 635 640
 Ile Val Pro Leu Pro Gly Pro Pro Gly Ala Glu Gly Leu Pro Gly Ser
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 Pro Gly Phe Pro Gly Pro Gln Gly Asp Arg Gly Phe Pro Gly Thr Pro
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 Leu Pro Gly Asn Pro Gly Val Gln Gly Gln Lys Gly Glu Pro Gly Val
 725 730 735
 Gly Leu Pro Gly Leu Lys Gly Leu Pro Gly Leu Pro Gly Ile Pro Gly
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 Thr Pro Gly Glu Lys Gly Ser Ile Gly Val Pro Gly Val Pro Gly Glu
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 His Gly Ala Ile Gly Pro Pro Gly Leu Gln Gly Ile Arg Gly Glu Pro
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 Gly Pro Pro Gly Leu Pro Gly Ser Val Gly Ser Pro Gly Val Pro Gly
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 Ile Gly Pro Pro Gly Ala Arg Gly Pro Pro Gly Gly Gln Gly Pro Pro
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 Phe Pro Gly Leu Asp Met Pro Gly Pro Lys Gly Asp Lys Gly Ala Gln
 835 840 845
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 850 855 860
 Gln Gln Gly Ala Pro Gly Ile Pro Gly Phe Pro Gly Ser Lys Gly Glu
 865 870 875 880
 Met Gly Val Met Gly Thr Pro Gly Gln Pro Gly Ser Pro Gly Pro Val
 885 890 895
 Gly Ala Pro Gly Leu Pro Gly Glu Lys Gly Asp His Gly Phe Pro Gly
 900 905 910
 Ser Ser Gly Pro Arg Gly Asp Pro Gly Leu Lys Gly Asp Lys Gly Asp
 915 920 925
 Val Gly Leu Pro Gly Lys Pro Gly Ser Met Asp Lys Val Asp Met Gly
 930 935 940
 Ser Met Lys Gly Gln Lys Gly Asp Gln Gly Glu Lys Gly Gln Ile Gly
 945 950 955 960
 Pro Ile Gly Glu Lys Gly Ser Arg Gly Asp Pro Gly Thr Pro Gly Val

	965	970	975
Pro Gly Lys Asp Gly Gln Ala Gly Gln Pro Gly Gln Pro Gly Pro Lys	980	985	990
Gly Asp Pro Gly Ile Ser Gly Thr Pro Gly Ala Pro Gly Leu Pro Gly	995	1000	1005
Pro Lys Gly Ser Val Gly Gly Met Gly Leu Pro Gly Thr Pro Gly Glu	1010	1015	1020
Lys Gly Val Pro Gly Ile Pro Gly Pro Gln Gly Ser Pro Gly Leu Pro	1025	1030	1035
Gly Asp Lys Gly Ala Lys Gly Glu Lys Gly Gln Ala Gly Pro Pro Gly	1045	1050	1055
Ile Gly Ile Pro Gly Leu Arg Gly Glu Lys Gly Asp Gln Gly Ile Ala	1060	1065	1070
Gly Phe Pro Gly Ser Pro Gly Glu Lys Gly Glu Lys Gly Ser Ile Gly	1075	1080	1085
Ile Pro Gly Met Pro Gly Ser Pro Gly Leu Lys Gly Ser Pro Gly Ser	1090	1095	1100
Val Gly Tyr Pro Gly Ser Pro Gly Leu Pro Gly Glu Lys Gly Asp Lys	1105	1110	1115
Gly Leu Pro Gly Leu Asp Gly Ile Pro Gly Val Lys Gly Glu Ala Gly	1125	1130	1135
Leu Pro Gly Thr Pro Gly Pro Thr Gly Pro Ala Gly Gln Lys Gly Glu	1140	1145	1150
Pro Gly Ser Asp Gly Ile Pro Gly Ser Ala Gly Glu Lys Gly Glu Pro	1155	1160	1165
Gly Leu Pro Gly Arg Gly Phe Pro Gly Phe Pro Gly Ala Lys Gly Asp	1170	1175	1180
Lys Gly Ser Lys Gly Glu Val Gly Phe Pro Gly Leu Ala Gly Ser Pro	1185	1190	1195
Gly Ile Pro Gly Ser Lys Gly Glu Gln Gly Phe Met Gly Pro Pro Gly	1205	1210	1215
Pro Gln Gly Gln Pro Gly Leu Pro Gly Ser Pro Gly His Ala Thr Glu	1220	1225	1230
Gly Pro Lys Gly Asp Arg Gly Pro Gln Gly Gln Pro Gly Leu Pro Gly	1235	1240	1245
Leu Pro Gly Pro Met Gly Pro Pro Gly Leu Pro Gly Ile Asp Gly Val	1250	1255	1260
Lys Gly Asp Lys Gly Asn Pro Gly Trp Pro Gly Ala Pro Gly Val Pro	1265	1270	1275
Gly Pro Lys Gly Asp Pro Gly Phe Gln Gly Met Pro Gly Ile Gly Gly	1285	1290	1295
Ser Pro Gly Ile Thr Gly Ser Lys Gly Asp Met Gly Pro Pro Gly Val	1300	1305	1310
Pro Gly Phe Gln Gly Pro Lys Gly Leu Pro Gly Leu Gln Gly Ile Lys	1315	1320	1325
Gly Asp Gln Gly Asp Gln Gly Val Pro Gly Ala Lys Gly Leu Pro Gly	1330	1335	1340
Pro Pro Gly Pro Pro Gly Pro Tyr Asp Ile Ile Lys Gly Glu Pro Gly	1345	1350	1355
Leu Pro Gly Pro Glu Gly Pro Pro Gly Leu Lys Gly Leu Gln Gly Leu	1365	1370	1375
Pro Gly Pro Lys Gly Gln Gln Gly Val Thr Gly Leu Val Gly Ile Pro	1380	1385	1390
Gly Pro Pro Gly Ile Pro Gly Phe Asp Gly Ala Pro Gly Gln Lys Gly	1395	1400	1405
Glu Met Gly Pro Ala Gly Pro Thr Gly Pro Arg Gly Phe Pro Gly Pro	1410	1415	1420
Pro Gly Pro Asp Gly Leu Pro Gly Ser Met Gly Pro Pro Gly Thr Pro	1425	1430	1435
Ser Val Asp His Gly Phe Leu Val Thr Arg His Ser Gln Thr Ile Asp	1445	1450	1455

Asp Pro Gln Cys Pro Ser Gly Thr Lys Ile Leu Tyr His Gly Tyr Ser
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 Leu Leu Tyr Val Gln Gly Asn Glu Arg Ala His Gly Gln Asp Leu Gly
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 <212> DNA
 <213> Homo sapiens

<400> 253

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<211> 750
<212> PRT
<213> Homo sapiens

<400> 254

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Lys	Gln	Leu	Lys	Gly	Lys	Asn	Pro	Glu	Asp	Leu	Ile	Trp	His	Thr	Pro
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Glu	Gly	Ile	Ser	Ile	Lys	Pro	Leu	Tyr	Ser	Lys	Arg	Asp	Thr	Met	Asp
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Leu	Pro	Glu	Glu	Leu	Pro	Gly	Val	Lys	Pro	Phe	Thr	Arg	Gly	Pro	Tyr
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Pro	Thr	Met	Tyr	Thr	Phe	Arg	Pro	Trp	Thr	Ile	Arg	Gln	Tyr	Ala	Gly
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Phe	Ser	Thr	Val	Glu	Glu	Ser	Asn	Lys	Phe	Tyr	Lys	Asp	Asn	Ile	Lys
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Phe	Met	Val	Arg	Asn	Thr	Tyr	Ile	Phe	Pro	Pro	Glu	Pro	Ser	Met	Lys
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						245			250					255	
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Arg Thr Gly Leu Gln Ala Gly	Leu Thr Ile Asp	Glu Phe Ala Pro Arg	
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Leu Ser Phe Phe Trp Gly Ile Gly	Met Asn Phe	Tyr Met Glu Ile Ala	
305	310	315	320
Lys Met Arg Ala Gly Arg Arg	Leu Trp Ala His	Leu Ile Glu Lys Met	
325	330	335	
Phe Gln Pro Lys Asn Ser Lys	Ser Leu Leu Leu	Arg Ala His Cys Gln	
340	345	350	
Thr Ser Gly Trp Ser Leu Thr	Glu Gln Asp Pro	Tyr Asn Asn Ile Val	
355	360	365	
Arg Thr Ala Ile Glu Ala Met	Ala Ala Val Phe	Gly Gly Thr Gln Ser	
370	375	380	
Leu His Thr Asn Ser Phe Asp	Glu Ala Leu Gly	Leu Pro Thr Val Lys	
385	390	395	400
Ser Ala Arg Ile Ala Arg Asn	Thr Gln Ile Ile Ile	Gln Glu Glu Ser	
405	410	415	
Gly Ile Pro Lys Val Ala Asp	Pro Trp Gly Gly	Ser Tyr Met Met Glu	
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Cys Leu Thr Asn Asp Val	Tyr Asp Ala Ala	Leu Lys Leu Ile Asn Glu	
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Lys Leu Arg Ile Glu Glu	Cys Ala Ala Arg Arg	Gln Ala Arg Ile Asp	
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Glu Asp Ala Val Glu Val	Leu Ala Ile Asp Asn	Thr Ser Val Arg Asn	
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Arg Gln Ile Glu Lys Leu Lys	Ile Lys Ser Ser	Arg Asp Gln Ala	
515	520	525	
Leu Ala Glu His Cys Leu	Ala Ala Leu Thr	Glu Cys Ala Ala Ser Gly	
530	535	540	
Asp Gly Asn Ile Leu Ala	Leu Ala Val Asp	Ala Ser Arg Ala Arg Cys	
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Thr Val Gly Glu Ile Thr	Asp Ala Leu Lys	Val Phe Gly Glu His	
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Lys Ala Asn Asp Arg Met	Val Ser Gly Ala	Tyr Arg Gln Glu Phe Gly	
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Glu Ser Lys Glu Ile Thr	Ser Ala Ile Lys Arg Val	His Lys Phe Met	
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Glu Arg Glu Gly Arg Arg	Pro Arg Leu Leu Val	Ala Lys Met Gly Gln	
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Asp Gly His Asp Arg Gly	Ala Lys Val Ile	Ala Thr Gly Phe Ala Asp	
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Leu Gly Phe Asp Val Asp	Ile Gly Pro Leu Phe	Gln Thr Pro Arg Glu	
645	650	655	
Val Ala Gln Gln Ala Val	Asp Ala Asp Val	His Ala Val Gly Val Ser	
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Thr Leu Ala Ala Gly His	Lys Thr Leu Val Pro	Glu Leu Ile Lys Glu	
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Leu Asn Ser Leu Gly Arg	Pro Asp Ile Leu Val	Met Cys Gly Gly Val	
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Ile Pro Pro Gln Asp Tyr	Glu Phe Leu Phe	Glu Val Gly Val Ser Asn	
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<400> 255

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<211> 9192

<212> DNA

<213> Homo sapiens

<400> 256

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<210> 257
<211> 3063
<212> PRT
<213> Homo sapiens

<400> 257

Met	Arg	Ser	Arg	Leu	Pro	Pro	Ala	Leu	Ala	Ala	Leu	1	5	10	15				
Leu	Leu	Ser	Ser	Ile	Glu	Ala	Glu	Val	Asp	Pro	Pro	Ser	Asp	Leu	Asn	20	25	30	
Phe	Lys	Ile	Ile	Asp	Glu	Asn	Thr	Val	His	Met	Ser	Trp	Ala	Glu	Pro	35	40	45	
Val	Asp	Pro	Ile	Val	Gly	Tyr	Arg	Ile	Thr	Val	Asp	Pro	Thr	Thr	Asp	50	55	60	
Gly	Pro	Thr	Lys	Glu	Phe	Thr	Leu	Ser	Ala	Ser	Thr	Thr	Glu	Thr	Leu	65	70	75	80
Leu	Ser	Glu	Leu	Val	Pro	Glu	Thr	Glu	Tyr	Val	Val	Thr	Ile	Thr	Ser	85	90	95	
Tyr	Asp	Glu	Val	Glu	Glu	Ser	Val	Pro	Val	Ile	Gly	Gln	Leu	Thr	Ile	100	105	110	
Gln	Thr	Gly	Ser	Ser	Thr	Lys	Pro	Val	Glu	Lys	Lys	Pro	Gly	Lys	Thr	115	120	125	
Glu	Ile	Gln	Lys	Cys	Ser	Val	Ser	Ala	Trp	Thr	Asp	Leu	Val	Phe	Leu	130	135	140	
Val	Asp	Gly	Ser	Trp	Ser	Val	Gly	Arg	Asn	Asn	Phe	Lys	Tyr	Ile	Leu	145	150	155	160
Asp	Phe	Ile	Ala	Ala	Leu	Val	Ser	Ala	Phe	Asp	Ile	Gly	Glu	Glu	Lys	165	170	175	
Thr	Arg	Val	Gly	Val	Val	Gln	Tyr	Ser	Ser	Asp	Thr	Arg	Thr	Glu	Phe	180	185	190	
Asn	Leu	Asn	Gln	Tyr	Tyr	Gln	Arg	Asp	Glu	Leu	Leu	Ala	Ala	Ile	Lys	195	200	205	
Lys	Ile	Pro	Tyr	Lys	Gly	Gly	Asn	Thr	Met	Thr	Gly	Asp	Ala	Ile	Asp	210	215	220	
Tyr	Leu	Val	Lys	Asn	Thr	Phe	Thr	Glu	Ser	Ala	Gly	Ala	Arg	Val	Gly	225	230	235	240
Phe	Pro	Lys	Val	Ala	Ile	Ile	Ile	Thr	Asp	Gly	Lys	Ser	Gln	Asp	Glu	245	250	255	
Val	Glu	Ile	Pro	Ala	Arg	Glu	Leu	Arg	Asn	Val	Gly	Val	Glu	Val	Phe	260	265	270	
Ser	Leu	Gly	Ile	Lys	Ala	Ala	Asp	Ala	Lys	Glu	Leu	Lys	Gln	Ile	Ala	275	280	285	
Ser	Thr	Pro	Ser	Leu	Asn	His	Val	Phe	Asn	Val	Ala	Asn	Phe	Asp	Ala	290	295	300	
Ile	Val	Asp	Ile	Gln	Asn	Glu	Ile	Ile	Ser	Gln	Val	Cys	Ser	Gly	Val	305	310	315	320
Asp	Glu	Gln	Leu	Gly	Glu	Leu	Val	Ser	Gly	Glu	Glu	Val	Val	Glu	Pro	325	330	335	
Pro	Ser	Asn	Leu	Ile	Ala	Met	Glu	Val	Ser	Ser	Lys	Tyr	Val	Lys	Leu	340	345	350	
Asn	Trp	Asn	Pro	Ser	Pro	Ser	Pro	Val	Thr	Gly	Tyr	Lys	Val	Ile	Leu	355	360	365	
Thr	Pro	Met	Thr	Ala	Gly	Ser	Arg	Gln	His	Ala	Leu	Ser	Val	Gly	Pro	370	375	380	
Gln	Thr	Thr	Thr	Leu	Ser	Val	Arg	Asp	Leu	Ser	Ala	Asp	Thr	Glu	Tyr	385	390	395	400
Gln	Ile	Ser	Val	Ser	Ala	Met	Lys	Gly	Met	Thr	Ser	Ser	Glu	Pro	Ile	405	410	415	
Ser	Ile	Met	Glu	Lys	Thr	Gln	Pro	Met	Lys	Val	Gln	Val	Glu	Cys	Ser				

420	425	430
Arg Gly Val Asp Ile Lys Ala Asp Ile Val Phe Leu Val Asp Gly Ser		
435	440	445
Tyr Ser Ile Gly Ile Ala Asn Phe Val Lys Val Arg Ala Phe Leu Glu		
450	455	460
Val Leu Val Lys Ser Phe Glu Ile Ser Pro Asn Arg Val Gln Ile Ser		
465	470	475
Leu Val Gln Tyr Ser Arg Asp Pro His Thr Glu Phe Thr Leu Lys Lys		
485	490	495
Phe Thr Lys Val Glu Asp Ile Ile Glu Ala Ile Asn Thr Phe Pro Tyr		
500	505	510
Arg Gly Gly Ser Thr Asn Thr Gly Lys Ala Met Thr Tyr Val Arg Glu		
515	520	525
Lys Ile Phe Val Pro Ser Lys Gly Ser Arg Ser Asn Val Pro Lys Val		
530	535	540
Met Ile Leu Ile Thr Asp Gly Lys Ser Ser Asp Ala Phe Arg Asp Pro		
545	550	555
Ala Ile Lys Leu Arg Asn Ser Asp Val Glu Ile Phe Ala Val Gly Val		
565	570	575
Lys Asp Ala Val Arg Ser Glu Leu Glu Ala Ile Ala Ser Pro Pro Ala		
580	585	590
Glu Thr His Val Phe Thr Val Glu Asp Phe Asp Ala Phe Gln Arg Ile		
595	600	605
Ser Phe Glu Leu Thr Gln Ser Ile Cys Leu Arg Ile Glu Gln Glu Leu		
610	615	620
Ala Ala Ile Lys Lys Ala Tyr Val Pro Pro Lys Asp Leu Ser Phe		
625	630	635
Ser Glu Val Thr Ser Tyr Gly Phe Lys Thr Asn Trp Ser Pro Ala Gly		
645	650	655
Glu Asn Val Phe Ser Tyr His Ile Thr Tyr Lys Glu Ala Ala Gly Asp		
660	665	670
Asp Glu Val Thr Val Val Glu Pro Ala Ser Ser Thr Ser Val Val Leu		
675	680	685
Ser Ser Leu Lys Pro Glu Thr Leu Tyr Leu Val Asn Val Thr Ala Glu		
690	695	700
Tyr Glu Asp Gly Phe Ser Ile Pro Leu Ala Gly Glu Glu Thr Thr Glu		
705	710	715
Glu Val Lys Gly Ala Pro Arg Asn Leu Lys Val Thr Asp Glu Thr Thr		
725	730	735
Asp Ser Phe Lys Ile Thr Trp Thr Gln Ala Pro Gly Arg Val Leu Arg		
740	745	750
Cys Arg Ile Ile Tyr Arg Pro Val Ala Gly Gly Glu Ser Arg Glu Val		
755	760	765
Thr Thr Pro Pro Asn Gln Arg Arg Arg Thr Leu Glu Asn Leu Ile Pro		
770	775	780
Asp Thr Lys Tyr Glu Val Ser Val Ile Pro Glu Tyr Phe Ser Gly Pro		
785	790	795
Gly Thr Pro Leu Thr Gly Asn Ala Ala Thr Glu Glu Val Arg Gly Asn		
805	810	815
Pro Arg Asp Leu Arg Val Ser Asp Pro Thr Thr Ser Thr Met Lys Leu		
820	825	830
Ser Trp Ser Gly Ala Pro Gly Lys Val Lys Gln Tyr Leu Val Thr Tyr		
835	840	845
Thr Pro Val Ala Gly Gly Glu Thr Gln Glu Val Thr Val Arg Gly Asp		
850	855	860
Thr Thr Asn Thr Val Leu Gln Gly Leu Lys Glu Gly Thr Gln Tyr Ala		
865	870	875
Leu Ser Val Thr Ala Leu Tyr Ala Ser Gly Ala Gly Asp Ala Leu Phe		
885	890	895
Gly Glu Gly Thr Thr Leu Glu Glu Arg Gly Ser Pro Gln Asp Leu Val		
900	905	910

Thr Lys Asp Ile Thr Asp Thr Ser Ile Gly Ala Tyr Trp Thr Ser Ala
 915 920 925
 Pro Gly Met Val Arg Gly Tyr Arg Val Ser Trp Lys Ser Leu Tyr Asp
 930 935 940
 Asp Val Asp Thr Gly Glu Lys Asn Leu Pro Glu Asp Ala Ile His Thr
 945 950 955 960
 Met Ile Glu Asn Leu Gln Pro Glu Thr Lys Tyr Arg Ile Ser Val Phe
 965 970 975
 Ala Thr Tyr Ser Ser Gly Glu Gly Glu Pro Leu Thr Gly Asp Ala Thr
 980 985 990
 Thr Glu Leu Ser Gln Asp Ser Lys Thr Leu Lys Val Asp Glu Glu Thr
 995 1000 1005
 Glu Asn Thr Met Arg Val Thr Trp Lys Pro Ala Pro Gly Lys Val Val
 1010 1015 1020
 Asn Tyr Arg Val Val Tyr Arg Pro His Gly Arg Gly Lys Gln Met Val
 1025 1030 1035 1040
 Ala Lys Val Pro Pro Thr Val Thr Ser Thr Val Leu Lys Arg Leu Gln
 1045 1050 1055
 Pro Gln Thr Thr Tyr Asp Ile Thr Val Leu Pro Ile Tyr Lys Met Gly
 1060 1065 1070
 Glu Gly Lys Leu Arg Gln Gly Ser Gly Thr Thr Ala Ser Arg Phe Lys
 1075 1080 1085
 Ser Pro Arg Asn Leu Lys Thr Ser Asp Pro Thr Met Ser Ser Phe Arg
 1090 1095 1100
 Val Thr Trp Glu Pro Ala Pro Gly Glu Val Lys Gly Tyr Lys Val Thr
 1105 1110 1115 1120
 Phe His Pro Thr Gly Asp Asp Arg Arg Leu Gly Glu Leu Val Val Gly
 1125 1130 1135
 Pro Tyr Asp Asn Thr Val Val Leu Glu Leu Arg Ala Gly Thr Thr
 1140 1145 1150
 Tyr Lys Val Asn Val Phe Gly Met Phe Asp Gly Gly Glu Ser Ser Pro
 1155 1160 1165
 Leu Val Gly Gln Glu Met Thr Thr Leu Ser Asp Thr Thr Val Met Pro
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 Ile Leu Ser Ser Gly Met Glu Cys Leu Thr Arg Ala Glu Ala Asp Ile
 1185 1190 1195 1200
 Val Leu Leu Val Asp Gly Ser Trp Ser Ile Gly Arg Ala Asn Phe Arg
 1205 1210 1215
 Thr Val Arg Ser Phe Ile Ser Arg Ile Val Glu Val Phe Asp Ile Gly
 1220 1225 1230
 Pro Lys Arg Val Gln Ile Ala Leu Ala Gln Tyr Ser Gly Asp Pro Arg
 1235 1240 1245
 Thr Glu Trp Gln Leu Asn Ala His Arg Asp Lys Lys Ser Leu Leu Gln
 1250 1255 1260
 Ala Val Ala Asn Leu Pro Tyr Lys Gly Gly Asn Thr Leu Thr Gly Met
 1265 1270 1275 1280
 Ala Leu Asn Phe Ile Arg Gln Gln Asn Phe Arg Thr Gln Ala Gly Met
 1285 1290 1295
 Arg Pro Arg Ala Arg Lys Ile Gly Val Leu Ile Thr Asp Gly Lys Ser
 1300 1305 1310
 Gln Asp Asp Val Glu Ala Pro Ser Lys Lys Leu Lys Asp Glu Gly Val
 1315 1320 1325
 Glu Leu Phe Ala Ile Gly Ile Lys Asn Ala Asp Glu Val Glu Leu Lys
 1330 1335 1340
 Met Ile Ala Thr Asp Pro Asp Asp Thr His Asp Tyr Asn Val Ala Asp
 1345 1350 1355 1360
 Phe Glu Ser Leu Ser Arg Ile Val Asp Asp Leu Thr Ile Asn Leu Cys
 1365 1370 1375
 Asn Ser Val Lys Gly Pro Gly Asp Leu Glu Ala Pro Ser Asn Leu Val
 1380 1385 1390
 Ile Ser Glu Arg Thr His Arg Ser Phe Arg Val Ser Trp Thr Pro Pro

1395	1400	1405
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Gly Lys Arg Gln Glu Phe Tyr Val Ser Arg Met Glu Thr Ser Thr Val		
1425	1430	1435
Leu Lys Asp Leu Lys Pro Glu Thr Glu Tyr Val Val Asn Val Tyr Ser		1440
1445	1450	1455
Val Val Glu Asp Glu Tyr Ser Glu Pro Leu Lys Gly Thr Glu Lys Thr		
1460	1465	1470
Leu Pro Val Pro Val Val Ser Leu Asn Ile Tyr Asp Val Gly Pro Thr		
1475	1480	1485
Thr Met His Val Gln Trp Gln Pro Val Gly Gly Ala Thr Gly Tyr Ile		
1490	1495	1500
Leu Ser Tyr Lys Pro Val Lys Asp Thr Glu Pro Thr Arg Pro Lys Glu		
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Val Arg Leu Gly Pro Thr Val Asn Asp Met Gln Leu Thr Asp Leu Val		1520
1525	1530	1535
Pro Asn Thr Glu Tyr Ala Val Thr Val Gln Ala Val Leu His Asp Leu		
1540	1545	1550
Thr Ser Glu Pro Val Thr Val Arg Glu Val Thr Leu Pro Leu Pro Arg		
1555	1560	1565
Pro Gln Asp Leu Lys Leu Arg Asp Val Thr His Ser Thr Met Asn Val		
1570	1575	1580
Phe Trp Glu Pro Val Pro Gly Lys Val Arg Lys Tyr Ile Val Arg Tyr		
1585	1590	1595
Lys Thr Pro Glu Glu Asp Val Lys Glu Val Glu Val Asp Arg Ser Glu		1600
1605	1610	1615
Thr Ser Thr Ser Leu Lys Asp Leu Phe Ser Gln Thr Leu Tyr Thr Val		
1620	1625	1630
Ser Val Ser Ala Val His Asp Glu Gly Glu Ser Pro Pro Val Thr Ala		
1635	1640	1645
Gln Glu Thr Thr Arg Pro Val Pro Ala Pro Thr Asn Leu Lys Ile Thr		
1650	1655	1660
Glu Val Thr Ser Glu Gly Phe Arg Gly Thr Trp Asp His Gly Ala Ser		
1665	1670	1675
Asp Val Ser Leu Tyr Arg Ile Thr Trp Gly Pro Phe Gly Ser Ser Asp		1680
1685	1690	1695
Lys Met Glu Thr Ile Leu Asn Gly Asp Glu Asn Thr Leu Val Phe Glu		
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Asn Leu Asn Pro Asn Thr Ile Tyr Glu Val Ser Ile Thr Ala Ile Tyr		
1715	1720	1725
Ala Asp Glu Ser Glu Ser Asp Asp Leu Ile Gly Ser Glu Arg Thr Leu		
1730	1735	1740
Pro Ile Leu Thr Thr Gln Ala Pro Lys Ser Gly Pro Arg Asn Leu Gln		
1745	1750	1755
Val Tyr Asn Ala Thr Ser Asn Ser Leu Thr Val Lys Trp Asp Pro Ala		1760
1765	1770	1775
Ser Gly Arg Val Gln Lys Tyr Arg Ile Thr Tyr Gln Pro Ser Thr Gly		
1780	1785	1790
Glu Gly Asn Glu Gln Thr Thr Ile Gly Gly Arg Gln Asn Ser Val		
1795	1800	1805
Val Leu Gln Lys Leu Lys Pro Asp Thr Pro Tyr Thr Ile Thr Val Ser		
1810	1815	1820
Ser Leu Tyr Pro Asp Gly Glu Gly Gly Arg Met Thr Gly Arg Gly Lys		
1825	1830	1835
Thr Lys Pro Leu Asn Thr Val Arg Asn Leu Arg Val Tyr Asp Pro Ser		1840
1845	1850	1855
Thr Ser Thr Leu Asn Val Arg Trp Asp His Ala Glu Gly Asn Pro Arg		
1860	1865	1870
Gln Tyr Lys Leu Phe Tyr Ala Pro Ala Ala Gly Gly Pro Glu Glu Leu		
1875	1880	1885

Val Pro Ile Pro Gly Asn Thr Asn Tyr Ala Ile Leu Arg Asn Leu Gln
 1890 1895 1900
 Pro Asp Thr Ser Tyr Thr Val Thr Val Pro Val Tyr Thr Glu Gly
 1905 1910 1915 1920
 Asp Gly Gly Arg Thr Ser Asp Thr Gly Arg Thr Leu Met Arg Gly Leu
 1925 1930 1935
 Ala Arg Asn Val Gln Val Tyr Asn Pro Thr Pro Asn Arg Leu Gly Val
 1940 1945 1950
 Arg Trp Asp Pro Ala Pro Gly Pro Val Leu Gln Tyr Arg Val Val Tyr
 1955 1960 1965
 Ser Pro Val Asp Gly Thr Arg Pro Ser Glu Ser Ile Val Val Pro Gly
 1970 1975 1980
 Asn Thr Arg Met Val His Leu Glu Arg Leu Ile Pro Asp Thr Leu Tyr
 1985 1990 1995 2000
 Ser Val Asn Leu Val Ala Leu Tyr Ser Asp Gly Glu Gly Asn Pro Ser
 2005 2010 2015
 Pro Ala Gln Gly Arg Thr Leu Pro Arg Ser Gly Pro Arg Asn Leu Arg
 2020 2025 2030
 Val Phe Gly Glu Thr Thr Asn Ser Leu Ser Val Ala Trp Asp His Ala
 2035 2040 2045
 Asp Gly Pro Val Gln Gln Tyr Arg Ile Ile Tyr Ser Pro Thr Val Gly
 2050 2055 2060
 Asp Pro Ile Asp Glu Tyr Thr Val Pro Gly Arg Arg Asn Asn Val
 2065 2070 2075 2080
 Ile Leu Gln Pro Leu Gln Pro Asp Thr Pro Tyr Lys Ile Thr Val Ile
 2085 2090 2095
 Ala Val Tyr Glu Asp Gly Asp Gly His Leu Thr Gly Asn Gly Arg
 2100 2105 2110
 Thr Val Gly Leu Leu Pro Pro Gln Asn Ile His Ile Ser Asp Glu Trp
 2115 2120 2125
 Tyr Thr Arg Phe Arg Val Ser Trp Asp Pro Ser Pro Ser Pro Val Leu
 2130 2135 2140
 Gly Tyr Lys Ile Val Tyr Lys Pro Val Gly Ser Asn Glu Pro Met Glu
 2145 2150 2155 2160
 Ala Phe Val Gly Glu Met Thr Ser Tyr Thr Leu His Asn Leu Asn Pro
 2165 2170 2175
 Ser Thr Thr Tyr Asp Val Asn Val Tyr Ala Gln Tyr Asp Ser Gly Leu
 2180 2185 2190
 Ser Val Pro Leu Thr Asp Gln Gly Thr Thr Leu Tyr Leu Asn Val Thr
 2195 2200 2205
 Asp Leu Lys Thr Tyr Gln Ile Gly Trp Asp Thr Phe Cys Val Lys Trp
 2210 2215 2220
 Ser Pro His Arg Ala Ala Thr Ser Tyr Arg Leu Lys Leu Ser Pro Ala
 2225 2230 2235 2240
 Asp Gly Thr Arg Gly Gln Glu Ile Thr Val Arg Gly Ser Glu Thr Ser
 2245 2250 2255
 His Cys Phe Thr Gly Leu Ser Pro Asp Thr Asp Tyr Gly Val Thr Val
 2260 2265 2270
 Phe Val Gln Thr Pro Asn Leu Glu Gly Pro Gly Val Ser Val Lys Glu
 2275 2280 2285
 His Thr Thr Val Lys Pro Thr Glu Ala Pro Thr Glu Pro Pro Thr Pro
 2290 2295 2300
 Pro Pro Pro Pro Thr Ile Pro Pro Ala Arg Asp Val Cys Lys Gly Ala
 2305 2310 2315 2320
 Lys Ala Asp Ile Val Phe Leu Thr Asp Ala Ser Trp Ser Ile Gly Asp
 2325 2330 2335
 Asp Asn Phe Asn Lys Val Val Lys Phe Ile Phe Asn Thr Val Gly Gly
 2340 2345 2350
 Phe Asp Glu Ile Ser Pro Ala Gly Ile Gln Val Ser Phe Val Gln Tyr
 2355 2360 2365
 Ser Asp Glu Val Lys Ser Glu Phe Lys Leu Asn Thr Tyr Asn Asp Lys

2370	2375	2380
Ala Leu Ala Leu Gly Ala Leu Gln Asn Ile Arg Tyr Arg Gly Gly Asn		
2385	2390	2395
Thr Arg Thr Gly Lys Ala Leu Thr Phe Ile Lys Glu Lys Val Leu Thr		
2405	2410	2415
Trp Glu Ser Gly Met Arg Lys Asn Val Pro Lys Val Leu Val Val Val		
2420	2425	2430
Thr Asp Gly Arg Ser Gln Asp Glu Val Lys Lys Ala Ala Leu Val Ile		
2435	2440	2445
Gln Gln Ser Gly Phe Ser Val Phe Val Val Gly Val Ala Asp Val Asp		
2450	2455	2460
Tyr Asn Glu Leu Ala Asn Ile Ala Ser Lys Pro Ser Glu Arg His Val		
2465	2470	2475
Phe Ile Val Asp Asp Phe Glu Ser Phe Glu Lys Ile Glu Asp Asn Leu		
2485	2490	2495
Ile Thr Phe Val Cys Glu Thr Ala Thr Ser Ser Cys Pro Leu Ile Tyr		
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Leu Asp Gly Tyr Thr Ser Pro Gly Phe Lys Met Leu Glu Ala Tyr Asn		
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Leu Thr Glu Lys Asn Phe Ala Ser Val Gln Gly Val Ser Leu Glu Ser		
2530	2535	2540
Gly Ser Phe Pro Ser Tyr Ser Ala Tyr Arg Ile Gln Lys Asn Ala Phe		
2545	2550	2555
Val Asn Gln Pro Thr Ala Asp Leu His Pro Asn Gly Leu Pro Pro Ser		
2565	2570	2575
Tyr Thr Ile Ile Leu Phe Arg Leu Leu Pro Glu Thr Pro Ser Asp		
2580	2585	2590
Pro Phe Ala Ile Trp Gln Ile Thr Asp Arg Asp Tyr Lys Pro Gln Val		
2595	2600	2605
Gly Val Ile Ala Asp Pro Ser Ser Lys Thr Leu Ser Phe Phe Asn Lys		
2610	2615	2620
Asp Thr Arg Gly Glu Val Gln Thr Val Thr Phe Asp Thr Glu Glu Val		
2625	2630	2635
Lys Thr Leu Phe Tyr Gly Ser Phe His Lys Val His Ile Val Val Thr		
2645	2650	2655
Ser Lys Ser Val Lys Ile Tyr Ile Asp Cys Tyr Glu Ile Ile Glu Lys		
2660	2665	2670
Asp Ile Lys Glu Ala Gly Asn Ile Thr Thr Asp Gly Tyr Glu Ile Leu		
2675	2680	2685
Gly Lys Leu Leu Lys Gly Glu Arg Lys Ser Ala Ala Phe Gln Ile Gln		
2690	2695	2700
Ser Phe Asp Ile Val Cys Ser Pro Val Trp Thr Ser Arg Asp Arg Cys		
2705	2710	2715
Cys Asp Ile Pro Ser Arg Arg Asp Glu Gly Lys Cys Pro Ala Phe Pro		
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Asn Ser Cys Thr Cys Thr Gln Asp Ser Val Gly Pro Pro Gly Pro Pro		
2740	2745	2750
Gly Pro Ala Gly Gly Pro Gly Ala Lys Gly Pro Arg Gly Glu Arg Gly		
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Ile Ser Gly Ala Ile Gly Pro Pro Gly Pro Arg Gly Asp Ile Gly Pro		
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Pro Gly Pro Gln Gly Pro Pro Gly Pro Gln Gly Pro Asn Gly Leu Ser		
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Gly Pro Met Gly Pro Pro Gly Asp Arg Gly Phe Thr Gly Lys Asp Ser		
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 2980 2985 2990
 Ser Ser Gly Pro Arg Gly Leu Pro Gly Pro Pro Gly Pro Gln Gly Glu
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 Ser Arg Thr Gly Pro Pro Gly Ser Thr Gly Ser Arg Gly Pro Pro Gly
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 Pro Pro Gly Arg Pro Gly Asn Ser Gly Ile Gln Gly Pro Pro Gly Pro
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 Gln Ser Tyr Pro Gly Ser Gly
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<210> 258
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 <212> DNA
 <213> Homo sapiens

<400> 258

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1717

<210> 259
<211> 338
<212> PRT
<213> Homo sapiens

<400> 259

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35 40 45
Ser Ala Met Tyr Cys Asp Glu Leu Lys Leu Lys Ser Val Pro Met Val
50 55 60
Pro Pro Gly Ile Lys Tyr Leu Tyr Leu Arg Asn Asn Gln Ile Asp His
65 70 75 80
Ile Asp Glu Lys Ala Phe Glu Asn Val Thr Asp Leu Gln Trp Leu Ile
85 90 95
Leu Asp His Asn Leu Leu Glu Asn Ser Lys Ile Lys Gly Arg Val Phe
100 105 110
Ser Lys Leu Lys Gln Leu Lys Lys Leu His Ile Asn His Asn Asn Leu
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Thr Glu Ser Val Gly Pro Leu Pro Lys Ser Leu Glu Asp Leu Gln Leu
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Thr His Asn Lys Ile Thr Lys Leu Gly Ser Phe Glu Gly Leu Val Asn
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Leu Thr Phe Ile His Leu Gln His Asn Arg Leu Lys Glu Asp Ala Val
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Ser Ala Ala Phe Lys Gly Leu Lys Ser Leu Glu Tyr Leu Asp Leu Ser
180 185 190
Phe Asn Gln Ile Ala Arg Leu Pro Ser Gly Leu Pro Val Ser Leu Leu
195 200 205
Thr Leu Tyr Leu Asp Asn Asn Lys Ile Ser Asn Ile Pro Asp Glu Tyr
210 215 220
Phe Lys Arg Phe Asn Ala Leu Gln Tyr Leu Arg Leu Ser His Asn Glu
225 230 235 240
Leu Ala Asp Ser Gly Ile Pro Gly Asn Ser Phe Asn Val Ser Ser Leu
245 250 255
Val Glu Leu Asp Leu Ser Tyr Asn Lys Leu Lys Asn Ile Pro Thr Val
260 265 270
Asn Glu Asn Leu Glu Asn Tyr Tyr Leu Glu Val Asn Gln Leu Glu Lys
275 280 285
Phe Asp Ile Lys Ser Phe Cys Lys Ile Leu Gly Pro Leu Ser Tyr Ser
290 295 300
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Leu Asn

<210> 260
<211> 6728
<212> DNA
<213> Homo sapiens

<400> 260

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120

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 <211> 1464
 <212> PRT
 <213> Homo sapiens

<400> 261

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 35 40 45
 Asp Arg Asp Val Trp Lys Pro Glu Pro Cys Arg Ile Cys Val Cys Asp
 50 55 60
 Asn Gly Lys Val Leu Cys Asp Asp Val Ile Cys Asp Glu Thr Lys Asn
 65 70 75 80
 Cys Pro Gly Ala Glu Val Pro Glu Gly Glu Cys Cys Pro Val Cys Pro
 85 90 95
 Asp Gly Ser Glu Ser Pro Thr Asp Gln Glu Thr Thr Gly Val Glu Gly
 100 105 110
 Pro Lys Gly Asp Thr Gly Pro Arg Gly Pro Arg Gly Pro Ala Gly Pro
 115 120 125
 Pro Gly Arg Asp Gly Ile Pro Gly Gln Pro Gly Leu Pro Gly Pro Pro
 130 135 140
 Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Leu Gly Gly Asn Phe Ala
 145 150 155 160
 Pro Gln Leu Ser Tyr Gly Tyr Asp Glu Lys Ser Thr Gly Gly Ile Ser
 165 170 175
 Val Pro Gly Pro Met Gly Pro Ser Gly Pro Arg Gly Leu Pro Gly Pro
 180 185 190
 Pro Gly Ala Pro Gly Pro Gln Gly Phe Gln Gly Pro Pro Gly Glu Pro
 195 200 205
 Gly Glu Pro Gly Ala Ser Gly Pro Met Gly Pro Arg Gly Pro Pro Gly
 210 215 220
 Pro Pro Gly Lys Asn Gly Asp Asp Gly Glu Ala Gly Lys Pro Gly Arg
 225 230 235 240
 Pro Gly Glu Arg Gly Pro Pro Gly Pro Gln Gly Ala Arg Gly Leu Pro
 245 250 255
 Gly Thr Ala Gly Leu Pro Gly Met Lys Gly His Arg Gly Phe Ser Gly
 260 265 270
 Leu Asp Gly Ala Lys Gly Asp Ala Gly Pro Ala Gly Pro Lys Gly Glu
 275 280 285
 Pro Gly Ser Pro Gly Glu Asn Gly Ala Pro Gly Gln Met Gly Pro Arg
 290 295 300
 Gly Leu Pro Gly Glu Arg Gly Arg Pro Gly Ala Pro Gly Pro Ala Gly
 305 310 315 320
 Ala Arg Gly Asn Asp Gly Ala Thr Gly Ala Ala Gly Pro Pro Gly Pro
 325 330 335
 Thr Gly Pro Ala Gly Pro Pro Gly Phe Pro Gly Ala Val Gly Ala Lys
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 355 360 365
 Val Arg Gly Glu Pro Gly Pro Pro Gly Pro Ala Gly Ala Ala Gly Pro
 370 375 380
 Ala Gly Asn Pro Gly Ala Asp Gly Gln Pro Gly Ala Lys Gly Ala Asn
 385 390 395 400
 Gly Ala Pro Gly Ile Ala Gly Ala Pro Gly Phe Pro Gly Ala Arg Gly
 405 410 415
 Pro Ser Gly Pro Gln Gly Pro Gly Gly Pro Pro Gly Pro Lys Gly Asn
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 Ser Gly Glu Pro Gly Ala Pro Gly Ser Lys Gly Asp Thr Gly Ala Lys
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 Gly Ala Asp Gly Val Ala Gly Pro Lys Gly Pro Ala Gly Glu Arg Gly

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Pro Gly Glu Ala Gly Leu Pro Gly Ala Lys	Gly Leu Thr Gly Ser Pro		
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Gly Ser Pro Gly Pro Asp Gly Lys	Thr Gly Pro Pro Gly Pro Ala Gly		
545	550	555	560
Gln Asp Gly Arg Pro Gly Pro Pro Gly	Pro Pro Gly Ala Arg Gly Gln		
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Ala Gly Val Met Gly Phe Pro Gly	Pro Lys Gly Ala Ala Gly Glu Pro		
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Ala Gly Pro Ala Gly Glu Arg Gly Glu	Gln Gly Pro Ala Gly Ser Pro		
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Gly Phe Gln Gly Leu Pro Gly Pro Ala Gly	Pro Pro Gly Glu Ala Gly		
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Lys Pro Gly Glu Gln Gly Val Pro Gly Asp	Leu Gly Ala Pro Gly Pro		
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Ser Gly Ala Arg Gly Glu Arg Gly Phe	Pro Gly Glu Arg Gly Val Gln		
675	680	685	
Gly Pro Pro Gly Pro Ala Gly Pro Arg Gly	Ala Asn Gly Ala Pro Gly		
690	695	700	
Asn Asp Gly Ala Lys Gly Asp Ala Gly	Ala Pro Gly Ala Pro Gly Ser		
705	710	715	720
Gln Gly Ala Pro Gly Leu Gln Gly Met	Pro Gly Glu Arg Gly Ala Ala		
725	730	735	
Gly Leu Pro Gly Pro Lys Gly Asp Arg Gly	Asp Ala Gly Pro Lys Gly		
740	745	750	
Ala Asp Gly Ser Pro Gly Lys Asp Gly	Val Arg Gly Leu Thr Gly Pro		
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Ile Gly Pro Pro Gly Pro Ala Gly	Ala Pro Gly Asp Lys Gly Glu Ser		
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Gly Pro Ser Gly Pro Ala Gly Pro Thr Gly	Ala Arg Gly Ala Pro Gly		
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Asp Arg Gly Glu Pro Gly Pro Pro Gly	Pro Ala Gly Phe Ala Gly Pro		
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Pro Gly Ala Asp Gly Gln Pro Gly	Ala Lys Gly Pro Gly Asp Ala		
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Gly Ala Lys Gly Asp Ala Gly	Pro Pro Gly Pro Ala Gly Pro Ala Gly		
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Pro Pro Gly Pro Ile Gly Asn Val Gly	Ala Pro Gly Ala Lys Gly Ala		
850	855	860	
Arg Gly Ser Ala Gly Pro Pro Gly	Ala Thr Gly Phe Pro Gly Ala Ala		
865	870	875	880
Gly Arg Val Gly Pro Pro Gly Pro Ser Gly	Asn Ala Gly Pro Pro Gly		
885	890	895	
Pro Pro Gly Pro Ala Gly Lys Glu Gly	Gly Lys Gly Pro Arg Gly Glu		
900	905	910	
Thr Gly Pro Ala Gly Arg Pro Gly	Glu Val Gly Pro Pro Gly Pro Pro		
915	920	925	
Gly Pro Ala Gly Glu Lys Gly Ser Pro Gly	Ala Asp Gly Pro Ala Gly		
930	935	940	
Ala Pro Gly Thr Pro Gly Pro Gln Gly	Ile Ala Gly Gln Arg Gly Val		
945	950	955	960
Val Gly Leu Pro Gly Gln Arg Gly Glu	Arg Gly Phe Pro Gly Leu Pro		
965	970	975	
Gly Pro Ser Gly Glu Pro Gly Lys Gln Gly	Pro Ser Gly Ala Ser Gly		
980	985	990	

Glu Arg Gly Pro Pro Gly Pro Met Gly Pro Pro Gly Leu Ala Gly Pro
 995 1000 1005
 Pro Gly Glu Ser Gly Arg Glu Gly Ala Pro Ala Ala Glu Gly Ser Pro
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 Gly Arg Asp Gly Ser Pro Gly Ala Lys Gly Asp Arg Gly Glu Thr Gly
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 Pro Ala Gly Pro Pro Gly Ala Pro Gly Ala Pro Gly Ala Pro Gly Pro
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 Val Gly Pro Ala Gly Lys Ser Gly Asp Arg Gly Glu Thr Gly Pro Ala
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 Gly Pro Ala Gly Pro Val Gly Pro Val Gly Ala Arg Gly Pro Ala Gly
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 Arg Gly Ile Lys Gly His Arg Gly Phe Ser Gly Leu Gln Gly Pro Pro
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 1125 1130 1135
 Pro Ala Gly Pro Arg Gly Pro Pro Gly Ser Ala Gly Ala Pro Gly Lys
 1140 1145 1150
 Asp Gly Leu Asn Gly Leu Pro Gly Pro Ile Gly Pro Pro Gly Pro Arg
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 Gly Arg Thr Gly Asp Ala Gly Pro Val Gly Pro Pro Gly Pro Pro Gly
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 Pro Pro Gly Pro Pro Gly Pro Pro Ser Ala Gly Phe Asp Phe Ser Phe
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 Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Arg Asp Leu Lys Met
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 Cys His Ser Asp Trp Lys Ser Gly Glu Tyr Trp Ile Asp Pro Asn Gln
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 1285 1290 1295
 Glu Thr Cys Val Tyr Pro Thr Gln Pro Ser Val Ala Gln Lys Asn Trp
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 Tyr Ile Ser Lys Asn Pro Lys Asp Lys Arg His Val Trp Phe Gly Glu
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 Ser Met Thr Asp Gly Phe Gln Phe Glu Tyr Gly Gly Gln Gly Ser Asp
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 Glu Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Val Ala Tyr
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 Met Asp Gln Gln Thr Gly Asn Leu Lys Lys Ala Leu Leu Lys Gly
 1380 1385 1390
 Ser Asn Glu Ile Glu Ile Arg Ala Glu Gly Asn Ser Arg Phe Thr Tyr
 1395 1400 1405
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 1410 1415 1420
 Thr Val Ile Glu Tyr Lys Thr Thr Lys Ser Ser Arg Leu Pro Ile Ile
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<210> 262
<211> 2574
<212> DNA
<213> *Homo sapiens*

<400> 262

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<210> 263

<211> 412

<212> PRT

<213> Homo sapiens

<400> 263

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Phe Ala Thr Val Ser Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe
      20          25          30
Gly His Ile Lys Lys Lys Arg Val Glu Ala Ile Arg Gly Gln Ile Leu

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Val Pro Tyr Gln Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu		
65	70	75
Glu Glu Met His Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr		
85	90	95
Glu Ser Glu Tyr Tyr Ala Lys Glu Ile His Lys Phe Asp Met Ile Gln		
100	105	110
Gly Leu Ala Glu His Asn Glu Leu Ala Val Cys Pro Lys Gly Ile Thr		
115	120	125
Ser Lys Val Phe Arg Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr		
130	135	140
Asn Leu Phe Arg Ala Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser		
145	150	155
160		
Ser Lys Arg Asn Glu Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro		
165	170	175
Asp Glu His Ile Ala Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro		
180	185	190
Thr Arg Gly Thr Ala Glu Trp Leu Ser Phe Asp Val Thr Asp Thr Val		
195	200	205
Arg Glu Trp Leu Leu Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser		
210	215	220
Ile His Cys Pro Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu		
225	230	235
240		
Asn Ile His Glu Val Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu		
245	250	255
Asp Asp His Gly Arg Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp		
260	265	270
His His Asn Pro His Leu Ile Leu Met Met Ile Pro Pro His Arg Leu		
275	280	285
Asp Asn Pro Gly Gln Gly Gln Arg Lys Lys Arg Ala Leu Asp Thr		
290	295	300
Asn Tyr Cys Phe Arg Asn Leu Glu Glu Asn Cys Cys Val Arg Pro Leu		
305	310	315
320		
Tyr Ile Asp Phe Arg Gln Asp Leu Gly Trp Lys Trp Val His Glu Pro		
325	330	335
Lys Gly Tyr Tyr Ala Asn Phe Cys Ser Gly Pro Cys Pro Tyr Leu Arg		
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Ser Ala Asp Thr Thr His Ser Thr Val Leu Gly Leu Tyr Asn Thr Leu		
355	360	365
Asn Pro Glu Ala Ser Ala Ser Pro Cys Cys Val Pro Gln Asp Leu Glu		
370	375	380
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<210> 264

<211> 5086

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(5086)

<223> n = A,T,C or G

<400> 264

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60

120

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Pro Gly Arg Asp Gly Glu Asp Gly Pro Thr Gly Pro Pro Gly Pro
 50 55 60
 Pro Gly Pro Pro Gly Pro Pro Gly Leu Gly Gly Asn Phe Ala Ala Gln
 65 70 75 80
 Tyr Asp Gly Lys Gly Val Gly Leu Gly Pro Gly Pro Met Gly Leu Met
 85 90 95
 Gly Pro Arg Gly Pro Pro Gly Ala Ala Gly Ala Pro Gly Pro Gln Gly
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 Phe Gln Gly Pro Ala Gly Glu Pro Gly Glu Pro Gly Gln Thr Gly Pro
 115 120 125
 Ala Gly Ala Arg Gly Pro Ala Gly Pro Pro Gly Lys Ala Gly Glu Asp
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 Gly His Pro Gly Lys Pro Gly Arg Pro Gly Glu Arg Gly Val Val Gly
 145 150 155 160
 Pro Gln Gly Ala Arg Gly Phe Pro Gly Thr Pro Gly Leu Pro Gly Phe
 165 170 175
 Lys Gly Ile Arg Gly His Asn Gly Leu Asp Gly Leu Lys Gly Gln Pro
 180 185 190
 Gly Ala Pro Gly Val Lys Gly Glu Pro Gly Ala Pro Gly Glu Asn Gly
 195 200 205
 Thr Pro Gly Gln Thr Gly Ala Arg Gly Leu Pro Gly Glu Arg Gly Arg
 210 215 220
 Val Gly Ala Pro Gly Pro Ala Gly Ala Arg Gly Ser Asp Gly Ser Val
 225 230 235 240

Gly Pro Val Gly Pro Ala Gly Pro Ile Gly Ser Ala Gly Pro Pro Gly
 245 250 255
 Phe Pro Gly Ala Pro Gly Pro Lys Gly Glu Ile Gly Ala Val Gly Asn
 260 265 270
 Ala Gly Pro Ala Gly Pro Ala Gly Pro Arg Gly Glu Val Gly Leu Pro
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 Gly Leu Ser Gly Pro Val Gly Pro Pro Gly Asn Pro Gly Ala Asn Gly
 290 295 300
 Leu Thr Gly Ala Lys Gly Ala Ala Gly Leu Pro Gly Val Ala Gly Ala
 305 310 315 320
 Pro Gly Leu Pro Gly Pro Arg Gly Ile Pro Gly Pro Val Gly Ala Ala
 325 330 335
 Gly Ala Thr Gly Ala Arg Gly Leu Val Gly Glu Pro Gly Pro Ala Gly
 340 345 350
 Ser Lys Gly Glu Ser Gly Asn Lys Gly Glu Pro Gly Ser Ala Gly Pro
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 Gln Gly Pro Pro Gly Pro Ser Gly Glu Gly Lys Arg Gly Pro Asn
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 Gly Glu Ala Gly Ser Ala Gly Pro Pro Gly Pro Pro Gly Leu Arg Gly
 385 390 395 400
 Ser Pro Gly Ser Arg Gly Leu Pro Gly Ala Asp Gly Arg Ala Gly Val
 405 410 415
 Met Gly Pro Pro Gly Ser Arg Gly Ala Ser Gly Pro Ala Gly Val Arg
 420 425 430
 Gly Pro Asn Gly Asp Ala Gly Arg Pro Gly Glu Pro Gly Leu Met Gly
 435 440 445
 Pro Arg Gly Leu Pro Gly Ser Pro Gly Asn Ile Gly Pro Ala Gly Lys
 450 455 460
 Glu Gly Pro Val Gly Leu Pro Gly Ile Asp Gly Arg Pro Gly Pro Ile
 465 470 475 480
 Gly Pro Ala Gly Ala Arg Gly Glu Pro Gly Asn Ile Gly Phe Pro Gly
 485 490 495
 Pro Lys Gly Pro Thr Gly Asp Pro Gly Lys Asn Gly Asp Lys Gly His
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 Ala Gly Leu Ala Gly Ala Arg Gly Ala Pro Gly Pro Asp Gly Asn Asn
 515 520 525
 Gly Ala Gln Gly Pro Pro Gly Pro Gln Gly Val Gln Gly Gly Lys Gly
 530 535 540
 Glu Gln Gly Pro Ala Gly Pro Pro Gly Phe Gln Gly Leu Pro Gly Pro
 545 550 555 560
 Ser Gly Pro Ala Gly Glu Val Gly Lys Pro Gly Glu Arg Gly Leu His
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 580 585 590
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 595 600 605
 Arg Gly Pro Ser Gly Pro Pro Gly Pro Asp Gly Asn Lys Gly Glu Pro
 610 615 620
 Gly Val Val Gly Ala Val Gly Thr Ala Gly Pro Ser Gly Pro Ser Gly
 625 630 635 640
 Leu Pro Gly Glu Arg Gly Ala Ala Gly Ile Pro Gly Gly Lys Gly Glu
 645 650 655
 Lys Gly Glu Pro Gly Leu Arg Gly Glu Ile Gly Asn Pro Gly Arg Asp
 660 665 670
 Gly Ala Arg Gly Ala His Gly Ala Val Gly Ala Pro Gly Pro Ala Gly
 675 680 685
 Ala Thr Gly Asp Arg Gly Glu Ala Gly Ala Ala Gly Pro Ala Gly Pro
 690 695 700
 Ala Gly Pro Arg Gly Ser Pro Gly Glu Arg Gly Glu Val Gly Pro Ala
 705 710 715 720
 Gly Pro Asn Gly Phe Ala Gly Pro Ala Gly Ala Gly Gln Pro Gly

725	730	735
Ala Lys Gly Glu Arg Gly Ala Lys Gly Pro Lys Gly Glu Asn Gly Val		
740	745	750
Val Gly Pro Thr Gly Pro Val Gly Ala Ala Gly Pro Ala Gly Pro Asn		
755	760	765
Gly Pro Pro Gly Pro Ala Gly Ser Arg Gly Asp Gly Gly Pro Pro Gly		
770	775	780
Met Thr Gly Phe Pro Gly Ala Ala Gly Arg Thr Gly Pro Pro Gly Pro		
785	790	800
Ser Gly Ile Ser Gly Pro Pro Gly Pro Pro Gly Pro Ala Gly Lys Glu		
805	810	815
Gly Leu Arg Gly Pro Arg Gly Asp Gln Gly Pro Val Gly Arg Thr Gly		
820	825	830
Glu Val Gly Ala Val Gly Pro Pro Gly Phe Ala Gly Glu Lys Gly Pro		
835	840	845
Ser Gly Glu Ala Gly Thr Ala Gly Pro Pro Gly Thr Pro Gly Pro Gln		
850	855	860
Gly Leu Leu Gly Ala Pro Gly Ile Leu Gly Leu Pro Gly Ser Arg Gly		
865	870	880
Glu Arg Gly Leu Pro Gly Val Ala Gly Ala Val Gly Glu Pro Gly Pro		
885	890	895
Leu Gly Ile Ala Gly Pro Pro Gly Ala Arg Gly Pro Pro Gly Ala Val		
900	905	910
Gly Ser Pro Gly Val Asn Gly Ala Pro Gly Glu Ala Gly Arg Asp Gly		
915	920	925
Asn Pro Gly Asn Asp Gly Pro Pro Gly Arg Asp Gly Gln Pro Gly His		
930	935	940
Lys Gly Glu Arg Gly Tyr Pro Gly Asn Ile Gly Pro Val Gly Ala Ala		
945	950	960
Gly Ala Pro Gly Pro His Gly Pro Val Gly Pro Ala Gly Lys His Gly		
965	970	975
Asn Arg Gly Glu Thr Gly Pro Ser Gly Pro Val Gly Pro Ala Gly Ala		
980	985	990
Val Gly Pro Arg Gly Pro Ser Gly Pro Gln Gly Ile Arg Gly Asp Lys		
995	1000	1005
Gly Glu Pro Gly Glu Lys Gly Pro Arg Gly Leu Pro Gly Leu Lys Gly		
1010	1015	1020
His Asn Gly Leu Gln Gly Leu Pro Gly Ile Ala Gly His His Gly Asp		
1025	1030	1035
Gln Gly Ala Pro Gly Ser Val Gly Pro Ala Gly Pro Arg Gly Pro Ala		
1045	1050	1055
Gly Pro Ser Gly Pro Ala Gly Lys Asp Gly Arg Thr Gly His Pro Gly		
1060	1065	1070
Thr Val Gly Pro Ala Gly Ile Arg Gly Pro Gln Gly His Gln Gly Pro		
1075	1080	1085
Ala Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Val Ser		
1090	1095	1100
Gly Gly Gly Tyr Asp Phe Gly Tyr Asp Gly Asp Phe Tyr Arg Ala Asp		
1105	1110	1120
Gln Pro Arg Ser Ala Pro Ser Leu Arg Pro Lys Asp Tyr Glu Val Asp		
1125	1130	1135
Ala Thr Leu Lys Ser Leu Asn Asn Gln Ile Glu Thr Leu Leu Thr Pro		
1140	1145	1150
Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Arg Asp Leu Arg Leu		
1155	1160	1165
Ser His Pro Glu Trp Ser Ser Gly Tyr Tyr Trp Ile Asp Pro Asn Gln		
1170	1175	1180
Gly Cys Thr Met Asp Ala Ile Lys Val Tyr Cys Asp Phe Ser Thr Gly		
1185	1190	1200
Glu Thr Cys Ile Arg Ala Gln Pro Glu Asn Ile Pro Ala Lys Asn Trp		
1205	1210	1215

Tyr Arg Ser Ser Lys Asp Lys His Val Trp Leu Gly Glu Thr Ile
 1220 1225 1230
 Asn Ala Gly Ser Gln Phe Glu Tyr Asn Val Glu Gly Val Thr Ser Lys
 1235 1240 1245
 Glu Met Ala Thr Gln Leu Ala Phe Met Arg Leu Leu Ala Asn Tyr Ala
 1250 1255 1260
 Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr Met Asp
 1265 1270 1275 1280
 Glu Glu Thr Gly Asn Leu Lys Lys Ala Val Ile Leu Gln Gly Ser Asn
 1285 1290 1295
 Asp Val Glu Leu Val Ala Glu Gly Asn Ser Arg Phe Thr Tyr Thr Val
 1300 1305 1310
 Leu Val Asp Gly Cys Ser Lys Lys Thr Asn Glu Trp Gly Lys Thr Ile
 1315 1320 1325
 Ile Glu Tyr Lys Thr Asn Lys Pro Ser Arg Leu Pro Phe Leu Asp Ile
 1330 1335 1340
 Ala Pro Leu Asp Ile Gly Gly Ala Asp His Glu Phe Phe Val Asp Ile
 1345 1350 1355 1360
 Gly Pro Val Cys Phe Lys
 1365

<210> 266
 <211> 2028
 <212> DNA
 <213> Homo sapiens

<400> 266

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gcagcaactc	actggagccc	ctcttgc(ccc)	ccgcaacagg	tgtttgggg	180
gtgaggatga	cctcgaggg	ctccgactgc	cgttgcaagt	gcatcatgcg	240
aaggacgcgt	gtagccgagt	gcmcagtggg	cgggcacgcg	tgaggactt	300
gagactgtga	gctcgggcac	tgactgccc	tgctcctgta	ccgcacctcc	360
aaccctgtg	agaacagatg	gaagatggag	aaactaaaaa	agcaggcgc	420
aagctgcagt	ccatggtgg	tctcctggag	ggcacccctgt	acagcatgga	480
gtgcacgcct	acgtcccaa	ggtggcctcc	cagatgaaca	cactggaaga	540
gcccaacctg	gcccgggaa	tgaggtgggt	aaggacagcg	tgccaccc	600
ttgaggact	atgagaatca	ctctggccatc	atgctgggca	tcagaaggg	660
ctggggcctcc	agctgtgca	gaaggatg	gcccgc	ctgcccacccc	720
actggtagca	aggcccagga	cacagctaga	ggaaaaggca	tgccacgggc	780
agtgtgcaga	aaagcttgc	agacagaggc	ctccccaaac	ctcccaaggg	840
caggtggaga	agctgagaaa	ggagagcggc	aaggcagtt	tcctccagcc	900
cccccgcccc	tggcccgagca	gcaggctgt	atccgggct	tcaccta	960
aagcaggagg	tgaccgaggc	ggtggcagac	aacccctcc	agggcacttc	1020
caactgccc	ccaaggtgga	gggcaggtcc	aactccgc	agcccaactc	1080
gatgaggctg	agcccagg	ctccgagcg	gtggacctgg	cttctggc	1140
atccctgcca	ccaccaccac	cgccaccacc	accccaaccc	ccaccaccag	1200
accgagccac	cttccagg	tccatcc	agccaaggc	gagggcag	1260
accctccggg	ctgtggaccc	ccctgtgg	caccacat	atgggc	1320
tggatggaa	accctgc	tcgagacgac	aggatctatg	tccaccaacta	1380
aacagcctgg	tggagg	caacctggaa	aacttca	ctactatgg	1440
tacaagctac	cctacaact	gatcggcaca	ggccacgt	gatgaa	1500
tacaaccgc	ccttccac	gaacatcatc	aagtacgacc	tacggcagcg	1560
tcctggcg	tgctggcc	cgtggtat	gaggacacca	cacctggaa	1620
cactcggaca	ttgacttgc	cgtggacg	agccgcctgt	gtggc	1680
gacgaccgc	atgaggccc	gcccgggt	atcgctctg	cccccggc	1740
ctctccgtc	accgggagac	cacgtggaa	acacgct	ggcggaa	1800
tgcttctgg	tgtggccat	cctgtatgc	gtggacacgt	acaaccagca	1860
gtcgccctac	cttgcacac	gcacacggg	accgacgc	ggaaggcc	1920
aacgacgac	cctacacc	ccagatcgac	tacaacccca	aggagcggg	1980
tgggacaatg	gccaccag	cac	ctccacttc	gctgtacg	2028

<210> 267
<211> 675
<212> PRT
<213> Homo sapiens

<400> 267
Met Ala Tyr Ala Lys Ala Leu Arg Leu Gln Trp Arg Glu Pro Leu Lys
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Gly Lys Gly Asn Lys Glu Arg Phe Lys Gly Glu Tyr Gln Leu Thr Trp
20 25 30
Ala Leu Lys Ala Thr His Cys Leu Ala Ala Thr His Trp Ser Pro Ser
35 40 45
Cys Pro Pro Gln Gln Val Phe Gly Asp Leu Asp Gln Val Arg Met Thr
50 55 60
Ser Glu Gly Ser Asp Cys Arg Cys Lys Cys Ile Met Arg Pro Leu Ser
65 70 75 80
Lys Asp Ala Cys Ser Arg Val Arg Ser Gly Arg Ala Arg Val Glu Asp
85 90 95
Phe Tyr Thr Val Glu Thr Val Ser Ser Gly Thr Asp Cys Arg Cys Ser
100 105 110
Cys Thr Ala Pro Pro Ser Ser Leu Asn Pro Cys Glu Asn Glu Trp Lys
115 120 125
Met Glu Lys Leu Lys Lys Gln Ala Pro Glu Leu Leu Lys Leu Gln Ser
130 135 140
Met Val Asp Leu Leu Glu Gly Thr Leu Tyr Ser Met Asp Leu Met Lys
145 150 155 160
Val His Ala Tyr Val His Lys Val Ala Ser Gln Met Asn Thr Leu Glu
165 170 175
Glu Ser Ile Lys Ala Asn Leu Ser Arg Glu Asn Glu Val Val Lys Asp
180 185 190
Ser Val Arg His Leu Ser Glu Gln Leu Arg His Tyr Glu Asn His Ser
195 200 205
Ala Ile Met Leu Gly Ile Lys Lys Glu Leu Ser Arg Leu Gly Leu Gln
210 215 220
Leu Leu Gln Lys Asp Ala Ala Ala Pro Ala Thr Pro Ala Thr Gly
225 230 235 240
Thr Gly Ser Lys Ala Gln Asp Thr Ala Arg Gly Lys Gly Lys Asp Ile
245 250 255
Ser Lys Tyr Gly Ser Val Gln Lys Ser Phe Ala Asp Arg Gly Leu Pro
260 265 270
Lys Pro Pro Lys Glu Lys Leu Leu Gln Val Glu Lys Leu Arg Lys Glu
275 280 285
Ser Gly Lys Gly Ser Phe Leu Gln Pro Thr Ala Lys Pro Arg Ala Leu
290 295 300
Ala Gln Gln Gln Ala Val Ile Arg Gly Phe Thr Tyr Tyr Lys Ala Gly
305 310 315 320
Lys Gln Glu Val Thr Glu Ala Val Ala Asp Asn Thr Leu Gln Gly Thr
325 330 335
Ser Trp Leu Glu Gln Leu Pro Pro Lys Val Glu Gly Arg Ser Asn Ser
340 345 350
Ala Glu Pro Asn Ser Ala Glu Gln Asp Glu Ala Glu Pro Arg Ser Ser
355 360 365
Glu Arg Val Asp Leu Ala Ser Gly Thr Pro Thr Ser Ile Pro Ala Thr
370 375 380
Thr Thr Thr Ala Thr Thr Pro Thr Pro Thr Thr Ser Leu Leu Pro
385 390 395 400
Thr Glu Pro Pro Ser Gly Pro Glu Val Ser Ser Gln Gly Arg Glu Ala
405 410 415
Ser Cys Glu Gly Thr Leu Arg Ala Val Asp Pro Pro Val Arg His His
420 425 430

Ser Tyr Gly Arg His Glu Gly Ala Trp Met Lys Asp Pro Ala Ala Arg
 435 440 445
 Asp Asp Arg Ile Tyr Val Thr Asn Tyr Tyr Gly Asn Ser Leu Val
 450 455 460
 Glu Phe Arg Asn Leu Glu Asn Phe Lys Gln Gly Arg Trp Ser Asn Met
 465 470 475 480
 Tyr Lys Leu Pro Tyr Asn Trp Ile Gly Thr Gly His Val Val Tyr Gln
 485 490 495
 Gly Ala Phe Tyr Tyr Asn Arg Ala Phe Thr Lys Asn Ile Ile Lys Tyr
 500 505 510
 Asp Leu Arg Gln Arg Phe Val Ala Ser Trp Ala Leu Leu Pro Asp Val
 515 520 525
 Val Tyr Glu Asp Thr Thr Pro Trp Lys Trp Arg Gly His Ser Asp Ile
 530 535 540
 Asp Phe Ala Val Asp Glu Ser Gly Leu Trp Val Ile Tyr Pro Ala Val
 545 550 555 560
 Asp Asp Arg Asp Glu Ala Gln Pro Glu Val Ile Val Leu Ser Arg Leu
 565 570 575
 Asp Pro Gly Asp Leu Ser Val His Arg Glu Thr Thr Trp Lys Thr Arg
 580 585 590
 Leu Arg Arg Asn Ser Tyr Gly Asn Cys Phe Leu Val Cys Gly Ile Leu
 595 600 605
 Tyr Ala Val Asp Thr Tyr Asn Gln Gln Glu Gly Gln Val Ala Tyr Ala
 610 615 620
 Phe Asp Thr His Thr Gly Thr Asp Ala Arg Pro Gln Leu Pro Phe Leu
 625 630 635 640
 Asn Glu His Ala Tyr Thr Thr Gln Ile Asp Tyr Asn Pro Lys Glu Arg
 645 650 655
 Val Leu Tyr Ala Trp Asp Asn Gly His Gln Leu Thr Tyr Thr Leu His
 660 665 670
 Phe Val Val
 675

<210> 268
 <211> 1909
 <212> DNA
 <213> Homo sapiens

<400> 268

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tctactgtat	gaattatgct	ttaagtagaa	ttcagtgcca	aggagaactt	ggtaaaataa	180
attattttaa	tttttttttt	atcctttaca	aagccatgga	ttttattttgg	ttgatgtgt	240
ctctgtacac	aagccatttc	aataggatgg	agctgttaat	tatttccaa	agagtaataag	300
acatgcaaaa	gtttcaataa	aaactgggcc	attaacaaat	aaattaataa	actaataaagc	360
atcccttct	aggttttgc	caaactgcct	atccaataac	aaatttgaga	atcggtgaaa	420
aagctagttt	tatttcagag	aaatgatttt	cattattgaa	actgttctcc	ctagcaggcc	480
atttccctt	tttccctggg	gtttagcaag	ttttaggagag	aatagtcatg	aaaagaaaagg	540
gaagaaaagg	gagaaggggaa	gaggtaaaa	agtaagtgc	cagacatcgat	aacgtaatcc	600
ctttgctaga	aatatttaag	agcagctcag	cttgggtgaa	actgatgtttt	gtcatcttcc	660
atatttgca	gaaggatttt	tctgacttgc	aatgcagcta	gatgtaaaat	tttatttttat	720
catcctagaa	gccttgact	agaaaaatga	ataaaatattg	agggtttccct	gtccatatct	780
ggcttgcatg	tgccagaaaag	cagagaataag	aaaatgtaat	ctccaacatc	caagcatcgaa	840
aacccaaggg	gtaggcaatt	ctatgttaggt	tttggacatg	aagtttgggt	catcttgggtt	900
tatgctggct	caactgctat	taaacctctc	tggcttata	tctcttcatt	ctattagaca	960
agcacgtatc	gaacacttgc	ttcgcacaag	gctctttagt	taacaattta	gcagctactg	1020
tttgtgttaa	acacactttt	caccaaataag	gttctgaggc	aaacgagagc	aatgacttatt	1080
taaagaaaagg	ctttcccagc	atcacttaca	catccaaaa	ctaaaaaagat	caactcttcc	1140
aactgagaaaa	agactcctgg	cttgaatgg	aaacttacag	cagagagtca	caggcacgg	1200
caacaacaac	gacaacaaca	aaatatttgga	atatttct	caactcacgt	tttaataata	1260
catcttaatt	attttcttag	tagagaaact	acaaatcagc	ctcttcaaca	tttatataaca	1320

gtttaataaag	cctcttgcaa	gttacttgtt	ctctcacctg	aggtattttt	ttcctccccca	1380
ccttgccccc	gttcctccct	tcctcttctc	ccttgcaag	agggaaatattt	taacatattt	1440
gggtccaact	tcaataatgt	aataattaat	acattaaaag	catttaactt	cctttctaga	1500
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agacaagcaa	tctgaataaa	tatttgccaa	aagtctttt	tatgtcatat	agtgtcagga	1620
tttgaaggag	ctatttttt	taatgttgc	actagcaact	catcttcgga	agacacagcc	1680
aggagaatga	agtagaagtg	aaaggtttat	aaatccattt	gtaagcattt	atcccataata	1740
ttttaaattc	aagaaaaatt	gtgttatct	ttagaatttt	gtattcaata	ctttatgtac	1800
tatgtgactc	atgctctgg	ataaataaaag	caccaaataat	gtatctgtaa	ccacaatcac	1860
acatattata	ttaaatatat	atctatataa	caaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1909

<210> 269
<211> 83
<212> PRT
<213> Homo sapiens

<400> 269

Met	Tyr	Gly	Asn	Ile	Leu	Cys	Pro	Thr	Leu	His	Thr	Leu	Cys	Thr	Gln
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Ile	Leu	Tyr	Cys	Met	Asn	Tyr	Ala	Leu	Ser	Arg	Ile	Gln	Cys	Gln	Gly
								20			25			30	
Glu	Leu	Gly	Glu	Ile	Asn	Tyr	Phe	Asn	Phe	Phe	Ile	Leu	Tyr	Lys	
								35			40			45	
Ala	Met	Asp	Phe	Ile	Trp	Leu	Met	Cys	Ala	Leu	Tyr	Thr	Ser	His	Phe
								50			55			60	
Asn	Arg	Met	Glu	Leu	Leu	Ile	Ile	Phe	Gln	Arg	Val	Ile	Asp	Met	Gln
								65			70			75	
Lys	Phe	Gln													80

<210> 270
<211> 1720
<212> DNA
<213> Homo sapiens

<400> 270

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tggtaataat	ctctgaacct	gggcatgaaa	cagagagatg	tcctaactct	gggtgagagg	180
aatcctcatt	tttctctgcc	ctctcactgt	ggcatcctaa	aaaaaaagt	ttgggttct	240
gcagcatgaa	ggagagctct	gtccccagaa	tttgggagct	ccagatttct	tccagggtgt	300
ggaggcatca	atataatcagt	ctgggaaagg	gttctctggg	ccactccagg	agctgagttg	360
ggtggaggt	gctgagagtg	tgggtgggg	ccactctga	gcacccatgt	ggcaccact	420
gctggtccct	gtttgtggct	gggcactcag	aaaaatgttt	ttggtgctaa	gagtaaaaag	480
ccaaccaaca	aacacatctc	tttttctgt	ctattcactg	gaaagtaaaa	gcagtcctgg	540
cgcaggctgg	ggaccagat	gaaattcaaa	cttgcctcg	ctctcaaggt	gctcacgggt	600
gctgataaac	agctggataa	aatgaagagt	ctatgatgt	ggatgcaga	gccagggaaag	660
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gatgagctgg	ggcccttcctt	cccaatggca	tctcccccgt	gtctggaaact	gaagacactg	780
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gagggtgtgg	agaatgcctg	tttctctc	gaggagcatg	agacccattt	ccagaaccct	900
ggaaacacga	gactgggcag	ctcaccctgt	ccccctgggg	gtgtctcctc	actgccccga	960
tcccaagcggg	atgatctgtc	ctttcattca	gaggaggggc	cagccctgg	gcccgtgagc	1020
cgccccgggt	attatggctt	tgttccggc	ctcggtttcc	tggtgagtgg	gattttctg	1080
gtggtgacag	catacgccat	ccccctgt	gtcgagtca	atccggacac	agtgacagcg	1140
cgggagatgg	aacgactgga	gatgtactac	gccccctgt	gtctccaccc	ggacaggtgc	1200
atcatcgca	gcctcggtt	gtcacgggt	ggcggcatgc	tcttgtcggt	gctgctcatg	1260
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gccctgggtgg	agaatgaagt	tgtccagg	tcagagacta	gccacacccct	ccagaggtct	1440
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ctccccccca cctgaccctt gccaaggccc tggggttta aactgagctc acataggccc	1560
ttgtggaaaga agtactgggt gctggaggg gagctcgaaa cccagccat gccccacacg	1620
ggcaaggcgc ccactgatct gtttgtagc tgaggtttt catacggtt tgttggagg	1680
atggttctg ctgctaaaaaa tacaaaagt tggaaaccgc	1720

<210> 271
 <211> 256
 <212> PRT
 <213> Homo sapiens

<400> 271
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 Asp Glu Leu Gly Pro Ser Phe Pro Met Ala Ser Pro Pro Gly Leu Glu
 20 25 30
 Leu Lys Thr Leu Ser Asn Gly Pro Gln Ala Pro Arg Arg Ser Ala Pro
 35 40 45
 Leu Gly Pro Val Ala Pro Thr Arg Glu Gly Val Glu Asn Ala Cys Phe
 50 55 60
 Ser Ser Glu Glu His Glu Thr His Phe Gln Asn Pro Gly Asn Thr Arg
 65 70 75 80
 Leu Gly Ser Ser Pro Ser Pro Pro Gly Gly Val Ser Ser Leu Pro Arg
 85 90 95
 Ser Gln Arg Asp Asp Leu Ser Leu His Ser Glu Glu Gly Pro Ala Leu
 100 105 110
 Glu Pro Val Ser Arg Pro Val Asp Tyr Gly Phe Val Ser Ala Leu Val
 115 120 125
 Phe Leu Val Ser Gly Ile Leu Val Val Thr Ala Tyr Ala Ile Pro
 130 135 140
 Arg Glu Ala Arg Val Asn Pro Asp Thr Val Thr Ala Arg Glu Met Glu
 145 150 155 160
 Arg Leu Glu Met Tyr Tyr Ala Arg Leu Gly Ser His Leu Asp Arg Cys
 165 170 175
 Ile Ile Ala Gly Leu Gly Leu Leu Thr Val Gly Gly Met Leu Leu Ser
 180 185 190
 Val Leu Leu Met Val Ser Leu Cys Lys Gly Glu Leu Tyr Arg Arg Arg
 195 200 205
 Thr Phe Val Pro Gly Lys Gly Ser Arg Lys Thr Tyr Gly Ser Ile Asn
 210 215 220
 Leu Arg Met Arg Gln Leu Asn Gly Asp Gly Gly Gln Ala Leu Val Glu
 225 230 235 240
 Asn Glu Val Val Gln Val Ser Glu Thr Ser His Thr Leu Gln Arg Ser
 245 250 255

<210> 272
 <211> 1111
 <212> DNA
 <213> Homo sapiens

<400> 272

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acgccccatcaa gaagaagatg cagatgctga agctcgacaa ggagaacgc ttggatcgag	120
ctgagcaggc ggaggccgac aagaaggccg cgaaagacag gagcaagcag ctggaaatgg	180
agctgggtgc actgcaaaaag aaactcaagg gcaccgaaga tgaactggac aaataactctg	240
aggctctcaa agatgcccag gagaagctgg agctggcaga gaaaaaggccc accgatgctg	300
aagccgacgt agcttctctg aacagacgca tccagctgg tgaggaagag ttggatcgatg	360
cccaggagcg tctggcaaca gctttgcaga agctggagga agctgagaag gcagcagatg	420
agagtggagag aggcatgaaa gtcattgaga gtcgagccca aaaatggaa gaaaaaatgg	480
aaattcagga gatccaaactg aaagaggcca agcacattgc tgaagatgcc gaccgcaaat	540
acgaagaggt ggcccgtaag ctggatcatc ttgagagcga cctggaaacgt gcagaggagc	600
gggctgacgt ctcagaaggc aaatgtgccc agcttgaaga agaattgaaa actgtgacga	660

acaacttcaa	gtcactggag	gctcaggctg	agaagtactc	gcagaaggaa	gacagatatg	720
aggaagagat	caaggccctt	tccgacaagc	tgaaggaggc	tgagactcg	gctgagtttgc	780
cggagaggtc	agtaactaaa	ttggagaaaaa	gcattatgta	cttagaagac	gagctgtacg	840
ctcagaaact	gaagtacaaa	gccatcagcg	aggagctgga	ccacgctctc	aacgatata	900
cttccatata	agtttctttg	cttcacttct	cccaagactc	cctcgatcg	ctggatgtcc	960
cacctctctg	agctctgcat	ttgtctattc	tccagctgac	cctgggtctc	tctcttagca	1020
tcctgcctta	gagccaggca	cacactgtgc	tttctattgt	acagaagctc	ttcgatgtcc	1080
tgtcaaataa	acactgtgta	agctaaaaaaaaa	a			1111

<210> 273
 <211> 284
 <212> PRT
 <213> Homo sapiens

<400> 273					
Met	Asp	Ala	Ile	Lys	Lys
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Asn	Ala	Leu	Asp	Arg	Ala
			Glu	Gln	Ala
			20	25	30
Glu	Asp	Arg	Ser	Lys	Gln
			Gln	Leu	Glu
			35	40	45
Lys	Leu	Lys	Gly	Thr	Glu
				Glu	Asp
					Lys
					Tyr
					Ser
					Glu
					Ala
					Leu
			50	55	60
Lys	Asp	Ala	Gln	Glu	Lys
			Leu	Glu	Leu
			65	70	75
Ala	Glu	Ala	Asp	Val	Ala
			Ser	Leu	Asn
			Arg	Arg	Ile
				Gln	Glu
				Leu	Val
			85	90	95
Glu	Glu	Leu	Asp	Arg	Ala
			Gln	Glu	Glu
			100	105	110
Leu	Glu	Glu	Ala	Glu	Lys
			Ala	Ala	Asp
				Glu	Ser
				Glu	Arg
			115	120	125
Val	Ile	Glu	Ser	Arg	Ala
			Gln	Lys	Gln
			130	135	140
Glu	Ile	Gln	Leu	Lys	Glu
			Ala	lys	Ala
				His	Ile
				Ala	Glu
			145	150	155
Lys	Tyr	Glu	Glu	Val	Ala
			Arg	Lys	Leu
				Val	Ile
			165	170	175
Glu	Arg	Ala	Glu	Arg	Ala
			Glu	Glu	Glu
			180	185	190
Leu	Glu	Glu	Leu	Lys	Thr
				Val	Asn
			195	200	205
Ala	Gln	Ala	Glu	Lys	Tyr
			Tyr	Ser	Gln
				Glu	Lys
			210	215	220
Ile	Lys	Val	Leu	Ser	Asp
				Lys	Lys
			225	230	235
Phe	Ala	Glu	Arg	Ser	Val
				Thr	Lys
			245	250	255
Glu	Asp	Glu	Leu	Tyr	Ala
				Gln	Lys
			260	265	270
Glu	Leu	Asp	His	Ala	Leu
				Asn	Asp
			275		280

<210> 274
 <211> 2032
 <212> DNA
 <213> Homo sapiens

<400> 274						
caccccgccag	cccgccctcg	gcctccgccc	cttgggtgtcg	cgccccgccc	gcgagcccg	60
cccgcacgtc	ccccggccggc	ggccaccatg	agcacaggcc	tgcggatcaa	gagcaagctg	120
gcgaccggcc	aggacaagca	ggacattgac	aagcagtacg	tgggcttcgc	cacactgccc	180

aaccagggtgc	accgcaagtc	ggtgaagaaa	ggcttgact	tcacactcat	ggtggtgg	240
gagtcaggcc	tgggaagtc	cacactggc	cacaggctct	tcctgacaga	cttgcataag	300
gaccggaa	tgctcagtgc	tgaggagcgc	atcagccaga	cgtagagat	tctaaaacac	360
acgggtggaca	ttgaggagaa	gggagtcaag	ctgaagctca	ccatcgtgga	cacgcggga	420
ttcggggacg	ctgtcaacaa	caccgagtgc	tggaagccca	tcaccgacta	tgtggaccag	480
cagtttgagc	agtaattccg	tgatgagagc	ggcctaacc	gaaaagaacat	ccaagacaac	540
cgagtgcact	gctgcctata	ttcatctcc	cccttcgggc	atgggctgcg	gccagtggt	600
gtgggttca	tgaaggcatt	gcatgagaag	gtcaacatcg	tgccctctcat	cgc当地	660
gactgtctt	ccccactgt	gatccgaa	ctgaaggagc	ggatccggga	ggagattgac	720
aagtttggga	tccatgtata	ccagttccct	gagtgtgact	cgagcggag	tgaggacttc	780
aagcagcagg	accggaaact	gaaggagagc	gccccttcg	ccgttatagg	cagcaacacg	840
gtgggtggagg	ccaagggca	gcccgtccgg	ggccgactgt	accctgggg	gatcggtgg	900
gtggagaacc	aggcgcattt	cgacttcgt	aagctgcga	acatgctcat	ccgc当地	960
atgcacgacc	tcaaggacgt	gacgtgcgc	gtgc当地	agaactaccg	ccgc当地	1020
atccacgaga	tgaccagcaa	actgacccag	gacagccgca	tggagggccc	catccc当地	1080
ctgcccgtgc	ccaccggga	cgccgagact	gagaagctta	tcaggatgaa	gatgaggaa	1140
ctgaggcgca	tgcaggagat	gctgcagagg	atgaagcagc	agatgcagga	ccagtgc当地	1200
tcgcccggga	cacaccgtcc	gtctccggga	cgccctcgca	cccctggaca	ccagaccgg	1260
ctgttcccgaa	cccgagacg	cgggggccaca	gccccagct	gaccctaatt	tattctcagc	1320
accacccctt	cccaggtcat	tgtgtctgtt	tccgaggggc	ctggaccgta	gccccgccc	1380
agctggccct	ctctgacctt	gggggatcag	gagcgaagtt	ggccgggact	tcagagatcc	1440
gcctccctt	ccctccccc	gccccggac	ggtcacagca	cccaaaccgc	aggccctgct	1500
ctggcaggca	ggcaaagcta	ggcagaagag	gattcccagg	atcctgggtc	tgttccctgc	1560
cccagtgcgt	cagaacggac	ttgggagccc	tccttgcct	gtcccccgcgg	gtcaccacc	1620
gagtgcgttag	acccat	ctgtcgaggc	gggcccagtc	ttcccttata	cccagacgccc	1680
tagcggggcag	ggttgggctg	aatcaaattgg	gagccctcca	gacataaggg	ggccagaggc	1740
tgcaaggagc	ggggctgtga	ccgc当地	cccttctca	cagcccccgc	cgacctggag	1800
ggccccccggg	gcactggcgc	gtgagccacc	tcctggcaac	tctcggtgcc	gtccctgccc	1860
ctcgctcggag	gccttcttc	cccagcaccc	ctgtgtgtg	ccgggatcct	gaggcttaggc	1920
ctcccgatgt	tcccacccgc	atgatccctt	ccgc当地	gatgctccgt	tttctccgt	1980
tgtgaatgcc	gcgtctgtc	ctggtgacag	gagaacaatg	ttggtaacg	tc	2032

<210> 275
 <211> 369
 <212> PRT
 <213> Homo sapiens

<400> 275
Met Ser Thr Gly Leu Arg Tyr Lys Ser Lys Leu Ala Thr Pro Glu Asp
1 5 10 15
Lys Gln Asp Ile Asp Lys Gln Tyr Val Gly Phe Ala Thr Leu Pro Asn
20 25 30
Gln Val His Arg Lys Ser Val Lys Lys Gly Phe Asp Phe Thr Leu Met
35 40 45
Val Ala Gly Glu Ser Gly Leu Gly Lys Ser Thr Leu Val His Ser Leu
50 55 60
Phe Leu Thr Asp Leu Tyr Lys Asp Arg Lys Leu Leu Ser Ala Glu Glu
65 70 75 80
Arg Ile Ser Gln Thr Val Glu Ile Leu Lys His Thr Val Asp Ile Glu
85 90 95
Glu Lys Gly Val Lys Leu Lys Leu Thr Ile Val Asp Thr Pro Gly Phe
100 105 110
Gly Asp Ala Val Asn Asn Thr Glu Cys Trp Lys Pro Ile Thr Asp Tyr
115 120 125
Val Asp Gln Gln Phe Glu Gln Tyr Phe Arg Asp Glu Ser Gly Leu Asn
130 135 140
Arg Lys Asn Ile Gln Asp Asn Arg Val His Cys Cys Leu Tyr Phe Ile
145 150 155 160
Ser Pro Phe Gly His Gly Leu Arg Pro Val Asp Val Gly Phe Met Lys
165 170 175
Ala Leu His Glu Lys Val Asn Ile Val Pro Leu Ile Ala Lys Ala Asp

	180	185	190												
Cys	Leu	Val	Pro	Ser	Glu	Ile	Arg	Lys	Leu	Lys	Glu	Arg	Ile	Arg	Glu
	195	200	205												
Glu	Ile	Asp	Lys	Phe	Gly	Ile	His	Val	Tyr	Gln	Phe	Pro	Glu	Cys	Asp
	210	215	220												
Ser	Asp	Glu	Asp	Glu	Asp	Phe	Lys	Gln	Gln	Asp	Arg	Glu	Leu	Lys	Glu
	225	230	235												
Ser	Ala	Pro	Phe	Ala	Val	Ile	Gly	Ser	Asn	Thr	Val	Val	Glu	Ala	Lys
	245	250	255												
Gly	Gln	Arg	Val	Arg	Gly	Arg	Leu	Tyr	Pro	Trp	Gly	Ile	Val	Glu	Val
	260	265	270												
Glu	Asn	Gln	Ala	His	Cys	Asp	Phe	Val	Lys	Leu	Arg	Asn	Met	Leu	Ile
	275	280	285												
Arg	Thr	His	Met	His	Asp	Leu	Lys	Asp	Val	Thr	Cys	Asp	Val	His	Tyr
	290	295	300												
Glu	Asn	Tyr	Arg	Ala	His	Cys	Ile	Gln	Gln	Met	Thr	Ser	Lys	Leu	Thr
	305	310	315												
Gln	Asp	Ser	Arg	Met	Glu	Ser	Pro	Ile	Pro	Ile	Leu	Pro	Leu	Pro	Thr
	325	330	335												
Pro	Asp	Ala	Glu	Thr	Glu	Lys	Leu	Ile	Arg	Met	Lys	Asp	Glu	Glu	Leu
	340	345	350												
Arg	Arg	Met	Gln	Glu	Met	Leu	Gln	Arg	Met	Lys	Gln	Gln	Met	Gln	Asp
	355	360	365												
Gln															

<210> 276

<211> 1344

<212> DNA

<213> Homo sapiens

<400> 276

tgcagactga	tatggattca	ccactgctaa	cacccctgg	ttggaactac	aggaatagaa										60
ctggaaagggg	aaaaaaggca	gcattcacca	catcccaatc	ctgaatccaa	gagtctaaga										120
tagtccccca	ctccatatctc	aggcttagag	gattagatta	atccctggaa	gggaagactc										180
tcccttgaaa	catttttttat	ctgcctgtcg	tagctattgg	gataattcgg	gaaatccaca										240
gggacagttc	aagtcatctt	tgtcctctac	tttctgttgc	actctcagcc	ttgtttcttt										300
tttagaaact	gcatggtaac	tatataatag	cttataaaga	gatttcgtac	ctctggccctg										360
ggacttcctg	gatcctcctc	ttcttataaa	tacaaggcga	gagctgttat	cccggggagc										420
caggaagcag	tgagcccagg	agtcctcggt	cagccctgcc	tgcccccaccag	gaggatgaag										480
gtctccgtgg	ctgccccttc	ctgcctcattg	tttgttgctg	tccttggtatc	ccagggccag										540
ttcacaaatg	atgcagagac	agagttaatg	atgtcaaagc	ttccacttgaa	aaatccagta										600
gttctgaaca	gcttcactt	tgctgctgac	tgctgcaccc	cctacatctc	acaaagcatc										660
ccgtgttac	tcatggaaatg	ttattttggaa	acgaggcagcg	agtgtccaa	gccagggtgtc										720
atattcctca	ccaagaagggg	gcccccaatgc	tgtgcacaa	ccagtgggtcc	gggagggttcag										780
gattgcattg	aaaagctgaa	gcccctactca	atataataat	aaagagacaa	aagaggccag										840
ccacccaccc	ccaacaccc	ctgaggctct	gaagctccca	ccaggccagc	tctcccccac										900
caacagcttc	ccacacgtat	agatctccg	tggctccat	tcccttcttc	ctcctccatca										960
ccatcgccct	agggaccaatg	actgaatcc	cctcacgggg	accttaccac	ccctcagagt										1020
gctgtttcac	ctacactacc	tacaagatcc	cgcgtcagcg	gattatggat	tactatgaga										1080
ccaacagcca	gtgctccaag	cccggaattt	tcttcatcac	caaaaaggggc	cattccgtct										1140
gtaccaaccc	cagtgacaag	tgggtccagg	actatataaa	ggacatgaa	gagaactgag										1200
tgaccccgaaa	gggggtggcgaa	aggcacagct	cagagacata	aagagaagat	gccaaggccc										1260
cctccctccac	ccaccgctaa	ctctcagccc	cagtccaccc	cttggagctt	ccctgcttg										1320
aattaaagac	cactcatgt	cttc													1344

<210> 277

<211> 93

<212> PRT

<213> Homo sapiens

<400> 277
 Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
 1 5 10 15
 Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro
 20 25 30
 Ser Glu Cys Cys Phe Thr Tyr Thr Tyr Lys Ile Pro Arg Gln Arg
 35 40 45
 Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile
 50 55 60
 Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp
 65 70 75 80
 Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn
 85 90

<210> 278

<211> 1344

<212> DNA

<213> Homo sapiens

<400> 278

tgcagactga	tatggattca	ccactgctaa	cacctcctgg	ttggaactac	aggaatagaa
ctggaaaggg	aaaaaaggca	gcattcacca	catcccaatc	ctgaatccaa	gagtctaaga
tagtccccca	ctccatatctc	aggcttagag	gattagatta	atctcctgga	ggaaagactc
ttccctgaaa	cattttttt	tatctgcctg	tagctattgg	gataattcgg	aaaatccaca
gggacagttc	aagtcatctt	tgtcctctac	tttctgttgc	actctcagcc	ttgttcttctt
tttagaaact	gcatggtaac	tattatata	ctaaagaaga	gcattctgac	ctctgccctg
ggacttcctg	gatccctctc	ttcttataaa	tacaaggcga	gagctgttat	cccggggagc
caggaaagcag	tgagcccagg	agtccctcgcc	cagccctgcc	tgcccccacag	gaggatgaaag
gtctccgtgg	ctggccctctc	ctggccat	cttggctgtc	cccttgatc	ccaggccccag
ttcacaaatg	atgcagagac	agagttaat	atgtcaaagc	tccactggta	aaatccagta
gttctgaaca	gctttcactt	tgctgctgac	tgctgcacct	cctacatctc	acaaagcatc
ccgtgttca	tcatgaaaag	ttatTTgaa	acgagcagcg	agtgc	ccaggtgtc
atattccca	ccaagaaggg	gcccgaagt	tgtgccaaac	ccagtggtcc	gggagttcag
gattgcatga	aaaagctgaa	gccctactca	atataataat	aaagagacaa	aagaggccag
ccaccccaact	ccaacacctc	ctgagcctct	gaagctccc	ccaggccagc	tctcctccca
caacagcttc	ccacagcatg	aagatctccg	tggctgccat	tcccttctt	ctcctcatca
ccatgcctc	agggaccaag	actgaatct	cctcacgggg	accttaccac	ccctcagagt
gctgtttcac	cttactacc	tacaagatcc	cgcgtcagcg	gattatggat	tactatgaga
ccaaacagcc	gtgttccaag	cccggaattt	tcttcatcac	aaaaaggggc	cattcgtct
gttaccaaccc	cagtgacaag	tgggtccagg	actatataa	ggacatgaaag	gagaactgag
tgaccccaaaa	gggggtggcga	aggcacaat	cagagacata	aagagaagat	gccaaggccc
cctcctccac	ccacccgctaa	ctctcagcccc	cagtaccctt	tttggagctt	ccctgttttgc
aattaaagac	cactcatqct	cttc			

<210> 279

<211> 93

<212> PRT

<213> Homo sapiens

<400> 279

Met	Lys	Ile	Ser	Val	Ala	Ala	Ile	Pro	Phe	Phe	Leu	Leu	Ile	Thr	Ile
1				5					10				15		
Ala	Leu	Gly	Thr	Lys	Thr	Glu	Ser	Ser	Ser	Arg	Gly	Pro	Tyr	His	Pro
				20				25				30			
Ser	Glu	Cys	Cys	Phe	Thr	Tyr	Thr	Thr	Tyr	Lys	Ile	Pro	Arg	Gln	Arg
				35			40			45					
Ile	Met	Asp	Tyr	Tyr	Glu	Thr	Asn	Ser	Gln	Cys	Ser	Lys	Pro	Gly	Ile
					50		55			60					
Val	Phe	Ile	Thr	Lys	Arg	Gly	His	Ser	Val	Cys	Thr	Asn	Pro	Ser	Asp
				65			70		75			80			
Lys	Trp	Val	Gln	Asp	Tyr	Ile	Lys	Asp	Met	Lys	Glu	Asn			

85

90

<210> 280
 <211> 1344
 <212> DNA
 <213> Homo sapiens

<400> 280
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 ctggaaaggaa aaaaaaggca gcattcacca catcccaatc ctgaatccaa gagtctaaga 120
 tagtccccca ctccatatctc aggcttagag gattagatta atctcctgga gggaaagactc 180
 ttccttgaaa cattttttt tatctgcctg tagtattgg gataattcgg gaaatccaca 240
 gggacagttc aagtcatctt tgccctctac tttctgtgc actctcagcc ttgttctctt 300
 tttagaaact gcatggtaac tattatag ctaaagaaga gcattctgac ctctgccctg 360
 ggacttcctg gatccctctc ttcttataaa tacaaggca gagctggat cccggggagc 420
 cagaaagcag tgagccagg agtccctggc cagccctgcc tgcccaccag gaggatgaag 480
 gtctccgtgg ctgcctctc ctgcctcatg ctgttgc tccttgatc ccaggcccag 540
 ttcacaaatg atgcagagac agagttatg atgtcaaagc ttccactgaa aaatccagta 600
 gttctgaaca gcttcactt tgctgctgac tgctgcacct cctacatctc acaaagcatc 660
 ccgtgttcac tcatgaaaag ttatttgaa acgagcagcg agtgcctcaa gccaggtgtc 720
 atattcctca ccaagaaggaa gccgcagtc tgccttgc ccagtggatc gggagttcag 780
 gattgcatga aaaaagctgaa gcccactca atataataat aaagagacaa aagaggccag 840
 ccacccaccc ccaacacccct ctgagccctc gaagctccca ccaggccagc tctccctccca 900
 caacagcttc ccacagcatg aagatctccg tggctgccc tcccttctc ctccctcatca 960
 ccatcggccctt agggaccaag actgaatcc cctcacggg accttaccac ccctcagagt 1020
 gctgcttcac ctacactacc tacaagatcc cgcgtcagcg gattatggat tactatgaga 1080
 ccaacagcca gtgttccaag cccggaaatttgc ttccatcac caaaaggggc cattccgtct 1140
 gtaccaaccc cagtgacaag tgggtccagg actatcaa ggacatgaag gagaactgag 1200
 tgaccagaa ggggtggcga aggcacagct cagagacata aagagaagat gccaaggccc 1260
 cctcctccac ccaccgctaa ctctcagcccc cagtcaccctt ctggagctt ccctgcttt 1320
 aattaaagac cactcatgtt ctcc 1344

<210> 281
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 281
 Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
 1 5 10 15
 Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro
 20 25 30
 Ser Glu Cys Cys Phe Thr Tyr Thr Tyr Lys Ile Pro Arg Gln Arg
 35 40 45
 Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile
 50 55 60
 Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp
 65 70 75 80
 Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn
 85 90

<210> 282
 <211> 2750
 <212> DNA
 <213> Homo sapiens

<400> 282
 tacgatggca acacccccc caaggcccc aatgagttcc tgacctcggt ggtggagctc 60
 atcggcgcccg ccaaggccct gctggcggtt ctggaccgat tgcttattttt tgggttactt 120
 gagagaaaaac agttaaataa aaactaatti aataaaaaat ttagctggc ttgggtggcac 180
 atgcctgtaa tcccaagctac tcggggagctt gaagcaggagc agttgttgc acctggagg 240

cgttagattgc	agtgagccaa	gatcatccca	ctgcactcca	gcctggcgaa	cagagtgaga	300
cacagtcata	aacaaaacaa	aacaaaagg	aatttagagt	agcccatggg	gtagctatgc	360
ttaccaacat	ccagtggtat	ccccgtggat	tctccctacc	ccttttaag	aggattgttgc	420
ctacccctcta	gggtcccggtt	tacaggatc	actgattct	cagtacgaa	gaacaaaatt	480
atccagcttt	gcttggacct	gaccactaca	gtccagaagg	attgctttgt	agcggaaatg	540
gaggataaaag	tttaactgt	ggtcaaggtt	ttaaatggca	tctgtaccaa	aacaatccga	600
tctaccacag	atcctgtat	gagccagttt	gcatgtctgg	aggaagttc	cttaccaaacc	660
attaaacctg	gggaaggcct	gggcatgtac	atcaaataaa	cctatgtatgg	gttacacgtg	720
attactggaa	ccacagaaaa	ttctcctgca	gacagatctc	agaagattca	tgctgggtac	780
gaagtcatc	aagttaatca	gcaaactgtg	gtgggatggc	agctgaaaaa	tctggtaag	840
aaattgagag	agaatcccac	cggagttgt	ttactgctta	agaagcggcc	caccgggtct	900
ttcaacttta	ctcctgtcc	cctgaaaaac	ctacgggtgg	agccacctct	tgtagacacc	960
tcacccctcac	ccgcgacaaac	ccagtcocct	gaaagacta	tggataccctc	actgaagaag	1020
gagaagtca	ccatcctgga	tctttatatt	cctccctccgc	ctgctgttcc	ctactctccc	1080
cggatgaga	atggcagttt	tgtttatgg	gggtccagta	agtgcacaa	accattggct	1140
ggtcctaagg	gttcagagtc	cccgaattcc	ttcttgacc	aggaagccg	gagacgaaga	1200
ttcaccattt	cagactcgga	tcagttgtt	gggtactcg	tggaaacc	cattctgccc	1260
acaaaaatga	gagagaaaaac	accatctt	grcaagccac	ggcctttgtc	catgcctgct	1320
gatggaaact	ggatggggat	tgtggaccct	tttgccagac	ctcgaggc	tggcaggaaa	1380
ggggaggatg	cccttgcgc	gtatttcagt	aacgagcgg	ttcctccgat	cattgaagag	1440
agctcccttc	ccccataccg	gttctccaga	cccacgaccg	agcggcatct	gttccgggt	1500
gcggactaca	tccgaggaag	cagggtctac	atcaactcag	atctccacag	cagcgcacg	1560
attccattcc	aggaggaagg	gacaaaaaag	aaatctggct	cctcagctac	gaagtccctcg	1620
tccacagaac	cgtccctct	ggtcagctgg	tttacgcgc	tcaaactgtt	gactactga	1680
gagggaccct	gctcaggc	cctgcctgg	tcctgcccc	agtgccttgc	ttttacagtg	1740
gacagctct	tctcggttgc	gcctcagtt	tatgttagga	ccttatgca	tttcttttc	1800
ttttgaaaag	ttatctactg	cccttcttgg	aagtttgc	gattggatgg	gaacaaaattc	1860
agaggatctt	aggtgctggc	ttgtggagac	aaaaggagg	aaatgggtag	agcctgtttg	1920
tcttgcttcc	ccagagatag	aatgtgaaga	cacgcgc	aaatcgc	cctggccaga	1980
gacgttatgg	tcattgttag	ggactgggt	cattgttct	ttttgaggg	ctgggggac	2040
tcaaatttgtt	ggctgttttgc	acacagatgt	gttgggttgc	ggtccaactt	ctttatctga	2100
aaaagccagt	gagaaaaacat	ttttgatttgc	attttctaa	actatctacc	atattttaa	2160
tgttagcagct	ttgactttgc	aataacgtgg	caagtatctg	atttctcc	tgaggcagag	2220
gtttaagtgt	aggcctgtta	cacttgttgc	atacccttt	catgacagtc	tcagtataga	2280
tcagttgttgc	cagaaataca	tgaacacatt	ttgatagggc	ttatttcaca	caaagaagtt	2340
tatgttatt	tgtgtgggtt	ggtgttgc	tatatttgc	tcttaaggg	aaaagaagct	2400
ataagattcg	ctgacagcc	aagtatcatt	tagaaaatgc	aagaacaaga	tttaggttga	2460
tgaaaagatac	atgagtttgc	attttgc	gttgcgttgc	tgtctcc	cacgggtgt	2520
acacttcttc	aaaattgtac	acagtttgc	aattagaaat	atctggaa	gcctcatgg	2580
cactaatttt	caactagcat	caggatattt	gaaaacgtgt	gtctggat	taactcttgc	2640
ttaaaactgaa	tgtatgat	tttgttagaa	tggaaaagta	ctatcttgc	aatttaagta	2700
ttttaaat	agttgtat	ttttcttact	cttaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	2750

<210> 283

<211> 380

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(380)

<223> Xaa = Any Amino Acid

<400> 283

Met	Glu	Asp	Lys	Val	Leu	Thr	Val	Val	Lys	Val	Leu	Asn	Gly	Ile	Cys
1				5					10					15	
Asp	Lys	Thr	Ile	Arg	Ser	Thr	Thr	Asp	Pro	Val	Met	Ser	Gln	Cys	Ala
				20				25					30		
Cys	Leu	Glu	Glu	Val	His	Leu	Pro	Asn	Ile	Lys	Pro	Gly	Glu	Gly	Leu
				35				40					45		
Gly	Met	Tyr	Ile	Lys	Ser	Thr	Tyr	Asp	Gly	Leu	His	Val	Ile	Thr	Gly

50	55	60													
Thr	Thr	Glu	Asn	Ser	Pro	Ala	Asp	Arg	Ser	Gln	Lys	Ile	His	Ala	Gly
65															80
Asp	Glu	Val	Ile	Gln	Val	Asn	Gln	Gln	Thr	Val	Val	Gly	Trp	Gln	Leu
															95
Lys	Asn	Leu	Val	Lys	Lys	Leu	Arg	Glu	Asn	Pro	Thr	Gly	Val	Val	Leu
															100
Leu	Leu	Lys	Lys	Arg	Pro	Thr	Gly	Ser	Phe	Asn	Phe	Thr	Pro	Ala	Pro
															110
Leu	Lys	Asn	Leu	Arg	Trp	Lys	Pro	Pro	Leu	Val	Gln	Thr	Ser	Pro	Pro
															125
Pro	Ala	Thr	Thr	Gln	Ser	Pro	Glu	Ser	Thr	Met	Asp	Thr	Ser	Leu	Lys
145															160
Lys	Glu	Lys	Ser	Ala	Ile	Leu	Asp	Leu	Tyr	Ile	Pro	Pro	Pro	Pro	Ala
															175
Val	Pro	Tyr	Ser	Pro	Arg	Asp	Glu	Asn	Gly	Ser	Phe	Val	Tyr	Gly	Gly
															180
Ser	Ser	Lys	Cys	Lys	Gln	Pro	Leu	Pro	Gly	Pro	Lys	Gly	Ser	Glu	Ser
															195
Pro	Asn	Ser	Phe	Leu	Asp	Gln	Glu	Ser	Arg	Arg	Arg	Arg	Phe	Thr	Ile
															210
Ala	Asp	Ser	Asp	Gln	Leu	Pro	Gly	Tyr	Ser	Val	Glu	Thr	Asn	Ile	Leu
225															240
Pro	Thr	Lys	Met	Arg	Glu	Lys	Thr	Pro	Ser	Tyr	Xaa	Lys	Pro	Arg	Pro
															245
Leu	Ser	Met	Pro	Ala	Asp	Gly	Asn	Trp	Met	Gly	Ile	Val	Asp	Pro	Phe
															260
Ala	Arg	Pro	Arg	Gly	His	Gly	Arg	Lys	Gly	Glu	Asp	Ala	Leu	Cys	Arg
275															280
Tyr	Phe	Ser	Asn	Glu	Arg	Ile	Pro	Pro	Ile	Ile	Glu	Glu	Ser	Ser	Ser
290															295
Pro	Pro	Tyr	Arg	Phe	Ser	Arg	Pro	Thr	Thr	Glu	Arg	His	Leu	Val	Arg
305															310
Gly	Ala	Asp	Tyr	Ile	Arg	Gly	Ser	Arg	Cys	Tyr	Ile	Asn	Ser	Asp	Leu
															325
His	Ser	Ser	Ala	Thr	Ile	Pro	Phe	Gln	Glu	Glu	Gly	Thr	Lys	Lys	Lys
															340
Ser	Gly	Ser	Ser	Ala	Thr	Lys	Ser	Ser	Ser	Thr	Glu	Pro	Ser	Leu	Leu
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<210> 284

<211> 1789

<212> DNA

<213> Homo sapiens

<400> 284

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<210> 285

<211> 335

<212> PRT

<213> Homo sapiens

<400> 285

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						20			25					30		
Pro	Lys	Ile	Lue	Arg	Gln	Lue	Gly	Ser	Lys	Val	Lue	Lue	Pro	Lue	Thr	
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Tyr	Glu	Arg	Ile	Asn	Lys	Ser	Met	Asn	Lys	Ser	Ile	His	Ile	Val	Val	
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Thr	Met	Ala	Lys	Ser	Lue	Glu	Asn	Ser	Val	Glu	Asn	Lys	Ile	Val	Ser	
							65		70					80		
Lue	Asp	Asp	Pro	Ser	Glu	Ala	Gly	Pro	Pro	Arg	Tyr	Lue	Gly	Asp	Arg	Tyr
								85		90				95		
Lys	Phe	Tyr	Lue	Glu	Asn	Lue	Thr	Lue	Gly	Ile	Arg	Glu	Ser	Arg	Lys	
							100		105					110		
Glu	Asp	Glu	Gly	Trp	Tyr	Lue	Met	Thr	Lue	Glu	Lys	Asn	Val	Ser	Val	
							115		120					125		
Gln	Arg	Phe	Cys	Lue	Gln	Lue	Arg	Lue	Tyr	Glu	Gln	Val	Ser	Thr	Pro	
							130		135					140		
Glu	Ile	Lys	Val	Lue	Asn	Lys	Thr	Gln	Glu	Asn	Gly	Thr	Cys	Thr	Leu	
							145		150					160		
Ile	Leu	Gly	Cys	Thr	Val	Glu	Lys	Gly	Asp	His	Val	Ala	Tyr	Ser	Trp	
							165		170					175		
Ser	Glu	Lys	Ala	Gly	Thr	His	Pro	Lue	Asn	Pro	Ala	Asn	Ser	Ser	His	
							180		185					190		
Lue	Leu	Ser	Lue	Leu	Gly	Pro	Gln	His	Ala	Asp	Asn	Ile	Tyr	Ile		
							195		200					205		
Cys	Thr	Val	Ser	Asn	Pro	Ile	Ser	Asn	Asn	Ser	Gln	Thr	Phe	Ser	Pro	
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Trp	Pro	Gly	Cys	Arg	Thr	Asp	Pro	Ser	Glu	Thr	Lys	Pro	Trp	Ala	Val	
							225		230					240		
Tyr	Ala	Gly	Leu	Leu	Gly	Gly	Val	Ile	Met	Ile	Leu	Ile	Met	Val	Val	
							245		250					255		
Ile	Leu	Gln	Leu	Arg	Arg	Arg	Gly	Lys	Thr	Asn	His	Tyr	Gln	Thr	Thr	
							260		265					270		
Val	Glu	Lys	Lys	Ser	Leu	Thr	Ile	Tyr	Ala	Gln	Val	Gln	Lys	Pro	Gly	
							275		280					285		
Pro	Leu	Gln	Lys	Lys	Leu	Asp	Ser	Phe	Pro	Ala	Gln	Asp	Pro	Cys	Thr	

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<400> 286		
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Pro Lys Ile Leu Arg Gln Leu Gly Ser Lys Val Leu Leu Pro Leu Thr		
35 40 45		
Tyr Glu Arg Ile Asn Lys Ser Met Asn Lys Ser Ile His Ile Val Val		
50 55 60		
Thr Met Ala Lys Ser Leu Glu Asn Ser Val Glu Asn Lys Ile Val Ser		
65 70 75 80		
Leu Asp Pro Ser Glu Ala Gly Pro Pro Arg Tyr Leu Gly Asp Arg Tyr		
85 90 95		
Lys Phe Tyr Leu Glu Asn Leu Thr Leu Gly Ile Arg Glu Ser Arg Lys		
100 105 110		
Glu Asp Glu Gly Trp Tyr Leu Met Thr Leu Glu Lys Asn Val Ser Val		
115 120 125		
Gln Arg Phe Cys Leu Gln Leu Arg Leu Tyr Glu Gln Val Ser Thr Pro		
130 135 140		
Glu Ile Lys Val Leu Asn Lys Thr Gln Glu Asn Gly Thr Cys Thr Leu		
145 150 155 160		
Ile Leu Gly Cys Thr Val Glu Lys Gly Asp His Val Ala Tyr Ser Trp		
165 170 175		
Ser Glu Lys Ala Gly Thr His Pro Leu Asn Pro Ala Asn Ser Ser His		
180 185 190		
Leu Leu Ser Leu Thr Leu Gly Pro Gln His Ala Asp Asn Ile Tyr Ile		
195 200 205		
Cys Thr Val Ser Asn Pro Ile Ser Asn Asn Ser Gln Thr Phe Ser Pro		
210 215 220		
Trp Pro Gly Cys Arg Thr Asp Pro Ser Gly Lys Thr Asn His Tyr Gln		
225 230 235 240		
Thr Thr Val Glu Lys Lys Ser Leu Thr Ile Tyr Ala Gln Val Gln Lys		
245 250 255		
Pro Gly Pro Leu Gln Lys Lys Leu Asp Ser Phe Pro Ala Gln Asp Pro		
260 265 270		
Cys Thr Thr Ile Tyr Val Ala Ala Thr Glu Pro Val Pro Glu Ser Val		
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Ser		
305		
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<211> 298		
<212> PRT		
<213> Homo sapiens		
<400> 287		
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 Pro Lys Ile Leu Arg Gln Leu Gly Ser Lys Val Leu Leu Pro Leu Thr
 35 40 45
 Tyr Glu Arg Ile Asn Lys Ser Met Asn Lys Ser Ile His Ile Val Val
 50 55 60
 Thr Met Ala Lys Ser Leu Glu Asn Ser Val Glu Asn Lys Ile Val Ser
 65 70 75 80
 Leu Asp Pro Ser Glu Ala Gly Pro Pro Arg Tyr Leu Gly Asp Arg Tyr
 85 90 95
 Lys Phe Tyr Leu Glu Asn Leu Thr Leu Gly Ile Arg Glu Ser Arg Lys
 100 105 110
 Glu Asp Glu Gly Trp Tyr Leu Met Thr Leu Glu Lys Asn Val Ser Val
 115 120 125
 Gln Arg Phe Cys Leu Gln Leu Arg Leu Tyr Glu Gln Val Ser Thr Pro
 130 135 140
 Glu Ile Lys Val Leu Asn Lys Thr Gln Glu Asn Gly Thr Cys Thr Leu
 145 150 155 160
 Ile Leu Gly Cys Thr Val Glu Lys Gly Asp His Val Ala Tyr Ser Trp
 165 170 175
 Ser Glu Lys Ala Gly Thr His Pro Leu Asn Pro Ala Asn Ser Ser His
 180 185 190
 Leu Leu Ser Leu Thr Leu Gly Pro Gln His Ala Asp Asn Ile Tyr Ile
 195 200 205
 Cys Thr Val Ser Asn Pro Ile Ser Asn Asn Ser Gln Thr Phe Ser Pro
 210 215 220
 Trp Pro Gly Cys Arg Thr Asp Pro Ser Glu Thr Lys Pro Trp Ala Val
 225 230 235 240
 Tyr Ala Gly Leu Leu Gly Gly Val Ile Met Ile Leu Ile Met Val Val
 245 250 255
 Ile Leu Gln Leu Arg Arg Arg Gly Lys Thr Asn His Tyr Gln Thr Thr
 260 265 270
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 Asp Thr His His Gln Thr Ser Asp Leu Phe
 290 295

<210> 288
 <211> 3640
 <212> DNA
 <213> Homo sapiens

<400> 288

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<210> 289

<211> 628

<212> PRT

<213> Homo sapiens

<400> 289

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Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
   35          40          45
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
   50          55          60
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
   65          70          75          80
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp

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His Leu Ile Val Met Phe Lys Ser	Pro Arg Pro Ala Ala Met Val Leu	
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Asp Arg Ser Gln Asp Phe Gly Lys	Thr Trp Lys Pro Tyr Lys Tyr Phe	
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Ala Thr Asn Cys Ser Ala Thr Phe Gly	Leu Glu Asp Asp Val Val Lys	
165	170	175
Lys Gly Ala Ile Cys Thr Ser Lys	Tyr Ser Ser Pro Phe Pro Cys Thr	
180	185	190
Gly Gly Glu Val Ile Phe Lys	Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195	200	205
Asn Pro Tyr Ser Ala Lys Val Gln	Glu Gln Leu Lys Ile Thr Asn Leu	
210	215	220
Arg Val Gln Leu Leu Lys Arg Gln Ser Cys	Pro Cys Gln Arg Asn Asp	
225	230	235
Leu Asn Glu Glu Pro Gln His Phe Thr	His Tyr Ala Ile Tyr Asp Phe	
245	250	255
Ile Val Lys Gly Ser Cys Phe Cys Asn	Gly His Ala Asp Gln Cys Ile	
260	265	270
Pro Val His Gly Phe Arg Pro Val	Lys Ala Pro Gly Thr Phe His Met	
275	280	285
Val His Gly Lys Cys Met Cys	Lys His Asn Thr Ala Gly Ser His Cys	
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Gln His Cys Ala Pro Leu Tyr Asn Asp Arg	Pro Trp Glu Ala Ala Asp	
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Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg	Thr Cys Lys Cys Asn Gly	
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His Ala Asp Thr Cys His Phe Asp Val	Asn Val Trp Glu Ala Ser Gly	
340	345	350
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Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr	Arg Asp Leu Arg Arg	
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Pro Phe Ser Ala Pro Asp Ala Cys Lys	Pro Cys Ser Cys His Pro Val	
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Gly Ser Ala Val Leu Pro Ala Asn Ser Val	Thr Phe Cys Asp Pro Ser	
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Asn Gly Asp Cys Pro Cys Lys Pro	Gly Val Ala Gly Arg Arg Cys Asp	
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Arg Cys Met Val Gly Tyr Trp	Gly Phe Gly Asp Tyr Gly Cys Arg Pro	
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Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr	Gly Asp Cys Ile Ser	
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Ser His Thr Asp Ile Asp Trp Tyr His	Glu Val Pro Asp Phe Arg Pro	
465	470	475
Val His Asn Lys Ser Glu Pro Ala Trp	Glu Trp Glu Asp Ala Gln Gly	
485	490	495
Phe Ser Ala Leu Leu His Ser Gly Lys	Cys Glu Cys Lys Glu Gln Thr	
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Leu Gly Asn Ala Lys Ala Phe Cys	Gly Met Lys Tyr Ser Tyr Val Leu	
515	520	525
Lys Ile Lys Ile Leu Ser Ala His Asp Lys	Gly Thr His Val Glu Val	
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Asn Val Lys Ile Lys Val Leu Lys Ser	Thr Lys Leu Lys Ile Phe	
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Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser	Trp Thr Asp Arg Gly Cys	
565	570	575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
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 Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
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 Arg Glu Cys Lys
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 <211> 2540
 <212> DNA
 <213> Mouse

<400> 290

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aaaaaaaaaaa	aaaaaaaaaaa					2540

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 <211> 765

<212> PRT
<213> Mouse

<400> 291
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Ser Cys Tyr Ala Leu Phe Pro Arg Arg Arg Thr Phe Leu Glu Ala Trp
35 40 45
Arg Ala Cys Arg Glu Leu Gly Gly Asn Leu Ala Thr Pro Arg Thr Pro
50 55 60
Glu Glu Ala Gln Arg Val Asp Ser Leu Val Gly Val Gly Pro Ala Asn
65 70 75 80
Gly Leu Leu Trp Ile Gly Leu Gln Arg Gln Ala Arg Gln Cys Gln Pro
85 90 95
Gln Arg Pro Leu Arg Gly Phe Ile Trp Thr Thr Gly Asp Gln Asp Thr
100 105 110
Ala Phe Thr Asn Trp Ala Gln Pro Ala Thr Glu Gly Pro Cys Pro Ala
115 120 125
Gln Arg Cys Ala Ala Leu Glu Ala Ser Gly Glu His Arg Trp Leu Glu
130 135 140
Gly Ser Cys Thr Leu Ala Val Asp Gly Tyr Leu Cys Gln Phe Gly Phe
145 150 155 160
Glu Gly Ala Cys Pro Ala Leu Pro Leu Glu Val Gly Gln Ala Gly Pro
165 170 175
Ala Val Tyr Thr Pro Phe Asn Leu Val Ser Ser Glu Phe Glu Trp
180 185 190
Leu Pro Phe Gly Ser Val Ala Ala Val Gln Cys Gln Ala Gly Arg Gly
195 200 205
Ala Ser Leu Leu Cys Val Lys Gln Pro Ser Gly Gly Val Gly Trp Ser
210 215 220
Gln Thr Gly Pro Leu Cys Pro Gly Thr Gly Cys Gly Pro Asp Asn Gly
225 230 235 240
Gly Cys Glu His Glu Cys Val Glu Glu Val Asp Gly Ala Val Ser Cys
245 250 255
Arg Cys Ser Glu Gly Phe Arg Leu Ala Ala Asp Gly His Ser Cys Glu
260 265 270
Asp Pro Cys Ala Gln Ala Pro Cys Glu Gln Gln Cys Glu Pro Gly Gly
275 280 285
Pro Gln Gly Tyr Ser Cys His Cys Arg Leu Gly Phe Arg Pro Ala Glu
290 295 300
Asp Asp Pro His Arg Cys Val Asp Thr Asp Glu Cys Gln Ile Ala Gly
305 310 315 320
Val Cys Gln Gln Met Cys Val Asn Tyr Val Gly Gly Phe Glu Cys Tyr
325 330 335
Cys Ser Glu Gly His Glu Leu Glu Ala Asp Gly Ile Ser Cys Ser Pro
340 345 350
Ala Gly Ala Met Gly Ala Gln Ala Ser Gln Asp Leu Arg Asp Glu Leu
355 360 365
Leu Asp Asp Gly Glu Glu Gly Glu Asp Glu Glu Pro Trp Glu Asp
370 375 380
Phe Asp Gly Thr Trp Thr Glu Glu Gln Gly Ile Leu Trp Leu Ala Pro
385 390 395 400
Thr His Pro Pro Asp Phe Gly Leu Pro Tyr Arg Pro Asn Phe Pro Gln
405 410 415
Asp Gly Glu Pro Gln Arg Leu His Leu Glu Pro Thr Trp Pro Pro Pro
420 425 430
Leu Ser Ala Pro Arg Gly Pro Tyr His Ser Ser Val Val Ser Ala Thr
435 440 445
Arg Pro Met Val Ile Ser Ala Thr Arg Pro Thr Leu Pro Ser Ala His

450	455	460
Lys Thr Ser Val Ile Ser Ala Thr Arg Pro Pro Leu Ser Pro Val His		
465	470	475
Pro Pro Ala Met Ala Pro Ala Thr Pro Pro Ala Val Phe Ser Glu His		480
485	490	495
Gln Ile Pro Lys Ile Lys Ala Asn Tyr Pro Asp Leu Pro Phe Gly His		
500	505	510
Lys Pro Gly Ile Thr Ser Ala Thr His Pro Ala Arg Ser Pro Pro Tyr		
515	520	525
Gln Pro Pro Ile Ile Ser Thr Asn Tyr Pro Gln Val Phe Pro Pro His		
530	535	540
Gln Ala Pro Met Ser Pro Asp Thr His Thr Ile Thr Tyr Leu Pro Pro		
545	550	555
Val Pro Pro His Leu Asp Pro Gly Asp Thr Thr Ser Lys Ala His Gln		560
565	570	575
His Pro Leu Leu Pro Asp Ala Pro Gly Ile Arg Thr Gln Ala Pro Gln		
580	585	590
Leu Ser Val Ser Ala Leu Gln Pro Pro Leu Pro Thr Asn Ser Arg Ser		
595	600	605
Ser Val His Glu Thr Pro Val Pro Ala Ala Asn Gln Pro Pro Ala Phe		
610	615	620
Pro Ser Ser Pro Leu Pro Pro Gln Arg Pro Thr Asn Gln Thr Ser Ser		
625	630	635
Ile Ser Pro Thr His Ser Tyr Ser Arg Ala Pro Leu Val Pro Arg Glu		640
645	650	655
Gly Val Pro Ser Pro Lys Ser Val Pro Gln Leu Pro Ser Val Pro Ser		
660	665	670
Thr Ala Ala Pro Thr Ala Leu Ala Glu Ser Gly Leu Ala Gly Gln Ser		
675	680	685
Gln Arg Asp Asp Arg Trp Leu Leu Val Ala Leu Leu Val Pro Thr Cys		
690	695	700
Val Phe Leu Val Val Leu Leu Ala Leu Gly Ile Val Tyr Cys Thr Arg		
705	710	715
Cys Gly Ser His Ala Pro Asn Lys Arg Ile Thr Asp Cys Tyr Arg Trp		720
725	730	735
Val Thr His Ala Gly Asn Lys Ser Ser Thr Glu Pro Met Pro Pro Arg		
740	745	750
Gly Ser Leu Thr Gly Val Gln Thr Cys Arg Thr Ser Val		
755	760	765

<210> 292
<211> 3020
<212> DNA
<213> Mouse

<400> 292

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gctgggagca gccccgggtggc tcatgactac tcagagagtc tgcccaaaga aaagagtctt	300
gtatttgaaaa ggtttctggg tacctgaccg tggtcgttt gtttctaccc aacgttaac	360
agagagccca gagccatgat gaagaccttg tccagtggga actgcacact caatgtgcct	420
gctaagaact cttaccgcatt ggtggtgctg ggtgcctccc gagtgggcaa gagctccatt	480
gtctcccgct tcctcaatgg ccgcctttgag gaccagtaca cgcccactat cgaggacttt	540
catcgcaagg tgtacaacat ccacggggac atgtaccgc tggatatctt ggacacctct	600
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ctgggtgtca gcctggatag ccgggagttcc tttgtatggg tcaagcgcct ccagaaaacag	720
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aaaaaaaaaa	aaaaaaaaaa					3020

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 <211> 266
 <212> PRT
 <213> Mouse

<400> 293
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 Ser Ser Ile Val Ser Arg Phe Leu Asn Gly Arg Phe Glu Asp Gln Tyr
 35 40 45
 Thr Pro Thr Ile Glu Asp Phe His Arg Lys Val Tyr Asn Ile His Gly
 50 55 60
 Asp Met Tyr Gln Leu Asp Ile Leu Asp Thr Ser Gly Asn His Pro Phe
 65 70 75 80
 Pro Ala Met Arg Arg Leu Ser Ile Leu Thr Gly Asp Val Phe Ile Leu
 85 90 95
 Val Phe Ser Leu Asp Ser Arg Glu Ser Phe Asp Glu Val Lys Arg Leu
 100 105 110
 Gln Lys Gln Ile Leu Glu Val Lys Ser Cys Leu Lys Asn Lys Thr Lys
 115 120 125
 Glu Ala Ala Glu Leu Pro Met Val Ile Cys Gly Asn Lys Asn Asp His
 130 135 140

Ser	Glu	Leu	Cys	Arg	Gln	Val	Pro	Ala	Met	Glu	Ala	Glu	Leu	Leu	Val
145					150				155						160
Ser	Gly	Asp	Glu	Asn	Cys	Ala	Tyr	Phe	Glu	Val	Ser	Ala	Lys	Lys	Asn
					165				170						175
Thr	Asn	Val	Asn	Glu	Met	Phe	Tyr	Val	Leu	Phe	Ser	Met	Ala	Lys	Leu
					180				185						190
Pro	His	Glu	Met	Ser	Pro	Ala	Leu	His	His	Lys	Ile	Ser	Val	Gln	Tyr
					195				200						205
Gly	Asp	Ala	Phe	His	Pro	Arg	Pro	Phe	Cys	Met	Arg	Arg	Thr	Lys	Val
					210				215						220
Ala	Gly	Ala	Tyr	Gly	Met	Val	Ser	Pro	Phe	Ala	Arg	Arg	Pro	Ser	Val
					225				230						240
Asn	Ser	Asp	Leu	Lys	Tyr	Ile	Lys	Ala	Lys	Val	Leu	Arg	Glu	Gly	Gln
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Ala	Arg	Glu	Arg	Asp	Lys	Cys	Ser	Ile	Gln						
					260				265						

<210> 294

<211> 5520

<212> DNA

<213> Mouse

<400> 294

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tctggttc	tttgg	agttagc	ggagtagg	cac	ccagagg	3120
ggtgatggc	tgat	tggagtcc	ctgggg	tgatgacc	gcatt	3180
tac	ctggct	tgtggctt	tggtgc	agcgctgg	gccc	3240
gtgtgt	gtctgtac	cgtgg	tcagtc	gtctgttt	cttcact	3300
cactgt	gac	tgc	tcctgg	cctgtgc	tcctgtt	3360
ccctcg	ccatgt	agcccgg	ctgcg	ctacagag	tggat	3420
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cccg	ggc	ccgc	tgac	gac	ggcgtgg	3960
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gggg	caag	atgagg	atgt	actttaa	ccat	4080
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acgcgg	gtt	tactccc	aaatcctt	ggtgc	gttacc	4200
gtaggtt	aa	ggcgg	ctgat	cttgc	accat	4260
ctagg	aa	ggg	atgc	acttgc	atccc	4320
cgacag	aca	tcc	cagat	ccc	tgactat	4380
taaa	acat	cc	atgc	actgt	tcagc	4440
atcg	ttcc	agg	tgat	actgtt	actgt	4500
agg	tcag	aat	gat	ccac	ccgg	4560
atcc	gtgc	agat	ggc	ccagg	caat	4620
gcagg	tgag	ggg	actc	cttgc	ttag	4680
gggg	ggg	ggg	actg	ttgc	ttgc	4740
gggt	agg	ggc	atgc	acttgc	acttgc	4800
ggcagg	ccagg	tgg	ttgc	ccat	actat	4860
acag	tttc	aaa	atgc	acttgc	atgc	4920
ctgc	cagg	atc	actc	ttgc	actat	4980
atc	tc	ttc	atgc	acttgc	atgc	5040
actc	gtgc	taa	atc	ttgc	atgc	5100
atgc	tc	act	atc	acttgc	atgc	5160
atgc	ttc	act	atc	ttgc	atgc	5220
atgc	tc	act	atc	acttgc	atgc	5280
atgc	ttc	act	atc	ttgc	atgc	5340
atgc	tc	act	atc	acttgc	atgc	5400
atgc	ttc	act	atc	ttgc	atgc	5460
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<210> 295
<211> 1329
<212> PRT

<213> Mouse

<400> 295
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Pro Ile Arg Gly Cys Lys Cys Ser Gly Glu Arg Pro Lys Gly Leu Ser
35 40 45
Gly Gly Ala His Asn Pro Ala Arg Arg Arg Val Val Cys Gly Gly Gly
50 55 60
Asp Leu Pro Glu Pro Pro Asp Pro Gly Leu Leu Pro Asn Gly Thr Ile
65 70 75 80
Thr Leu Leu Leu Ser Asn Asn Lys Ile Thr Gly Leu Arg Asn Gly Ser
85 90 95
Phe Leu Gly Leu Ser Leu Leu Glu Lys Leu Asp Leu Arg Ser Asn Val
100 105 110
Ile Ser Thr Val Gln Pro Gly Ala Phe Leu Gly Leu Gly Glu Leu Lys
115 120 125
Arg Leu Asp Leu Ser Asn Asn Arg Ile Gly Cys Leu Thr Ser Glu Thr
130 135 140
Phe Gln Gly Leu Pro Arg Leu Leu Arg Leu Asn Ile Ser Gly Asn Ile
145 150 155 160
Tyr Ser Ser Leu Gln Pro Gly Val Phe Asp Glu Leu Pro Ala Leu Lys
165 170 175
Ile Val Asp Phe Gly Thr Glu Phe Leu Thr Cys Asp Cys Arg Leu Arg
180 185 190
Trp Leu Leu Pro Trp Ala Arg Asn His Ser Leu Gln Leu Ser Glu Arg
195 200 205
Thr Leu Cys Ala Tyr Pro Ser Ala Leu His Ala His Ala Leu Ser Ser
210 215 220
Leu Gln Glu Ser Gln Leu Arg Cys Glu Gly Ala Leu Glu Leu His Thr
225 230 235 240
His Tyr Leu Ile Pro Ser Leu Arg Gln Val Val Phe Gln Gly Asp Arg
245 250 255
Leu Pro Phe Gln Cys Ser Ala Ser Tyr Leu Gly Asn Asp Thr Arg Ile
260 265 270
His Trp Tyr His Asn Gly Ala Pro Met Glu Ser Asp Glu Gln Ala Gly
275 280 285
Ile Val Leu Ala Glu Asn Leu Ile His Asp Cys Thr Phe Ile Thr Ser
290 295 300
Glu Leu Thr Leu Ser His Ile Gly Val Trp Ala Ser Gly Glu Trp Glu
305 310 315 320
Cys Ser Val Ser Thr Val Gln Gly Asn Thr Ser Lys Lys Val Glu Ile
325 330 335
Val Val Leu Thr Ser Ala Ser Tyr Cys Pro Ala Glu Arg Val Thr
340 345 350
Asn Asn Arg Gly Asp Phe Arg Trp Pro Arg Thr Leu Ala Gly Ile Thr
355 360 365
Ala Tyr Gln Ser Cys Leu Gln Tyr Pro Phe Thr Ser Val Pro Leu Ser
370 375 380
Gly Gly Ala Pro Gly Thr Arg Ala Ser Arg Arg Cys Asp Arg Ala Gly
385 390 395 400
Arg Trp Glu Pro Gly Asp Tyr Ser His Cys Leu Tyr Thr Asn Asp Ile
405 410 415
Thr Arg Val Leu Tyr Thr Phe Val Leu Met Pro Ile Asn Ala Ser Asn
420 425 430
Ala Leu Thr Leu Ala His Gln Leu Arg Val Tyr Thr Ala Glu Ala Ala
435 440 445
Ser Phe Ser Asp Met Met Asp Val Val Tyr Val Ala Gln Met Ile Gln
450 455 460

Lys Phe Leu Gly Tyr Val Asp Gln Ile Lys Glu Leu Val Glu Val Met
 465 470 475 480
 Val Asp Met Ala Ser Asn Leu Met Leu Val Asp Glu His Leu Leu Trp
 485 490 495
 Leu Ala Gln Arg Glu Asp Lys Ala Cys Ser Gly Ile Val Gly Ala Leu
 500 505 510
 Glu Arg Ile Gly Gly Ala Ala Leu Ser Pro His Ala Gln His Ile Ser
 515 520 525
 Val Asn Ser Arg Asn Val Ala Leu Glu Ala Tyr Leu Ile Lys Pro His
 530 535 540
 Ser Tyr Val Gly Leu Thr Cys Thr Ala Phe Gln Arg Arg Glu Val Gly
 545 550 555 560
 Val Ser Gly Ala Gln Pro Ser Ser Val Gly Gln Asp Ala Pro Val Glu
 565 570 575
 Pro Glu Pro Leu Ala Asp Gln Gln Leu Arg Phe Arg Cys Thr Thr Gly
 580 585 590
 Arg Pro Asn Ile Ser Leu Ser Ser Phe His Ile Lys Asn Ser Val Ala
 595 600 605
 Leu Ala Ser Ile Gln Leu Pro Pro Ser Leu Phe Ser Thr Leu Pro Ala
 610 615 620
 Ala Leu Ala Pro Pro Val Pro Pro Asp Cys Thr Leu Gln Leu Leu Val
 625 630 635 640
 Phe Arg Asn Gly Arg Leu Phe Arg Ser His Gly Asn Asn Thr Ser Arg
 645 650 655
 Pro Gly Ala Ala Gly Pro Gly Lys Arg Arg Gly Val Ala Thr Pro Val
 660 665 670
 Ile Phe Ala Gly Thr Ser Gly Cys Gly Val Gly Asn Leu Thr Glu Pro
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 Arg Leu Arg Tyr Ser Gln Pro Asn Val Ser Ser Leu Tyr Cys Gln His
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 Leu Gly Asn Val Ala Val Leu Met Glu Leu Asn Ala Phe Pro Arg Glu
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 Ala Gly Gly Ser Gly Ala Gly Leu His Pro Val Val Tyr Pro Cys Thr
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 Asn His Ser Ser Ile His Val Ser Arg Lys Gly Trp His Met Leu Leu
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 Val Thr Leu Thr Asn Tyr Gln Met Val Cys Gln Ala Val Gly Ile Thr
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 Arg Val Leu His Lys Glu Leu Ser Trp Arg Ala Pro Pro Leu Glu Glu
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 Ile Ala Gly Gly Ile Pro Leu Ile Ile Cys Gly Ile Thr Ala Ala Val
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 Ile Thr Trp Ile Tyr Phe Leu Cys Ala Gly Leu His Leu Arg Ser His
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Gly	Ser	Thr	Arg
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Ser	Leu	Leu	Ala
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Pro	Ala	Pro	Pro
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Leu	Gly	Ala	Leu
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Cys	Gly	Ala	Leu
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Gly	Val	Ala	Ala
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Thr	His	His	Cys
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Cys	Cys	Pro	Pro
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Leu	Pro	Thr	Ala
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Pro	Pro	Cys	Lys
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Ala	Ser	Arg	Asp
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Ser	Lys	Arg	Arg
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<400> 296

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 50 55 60
 Ser Gln Asp Leu Gly Gly Ser Leu Ala Ile Asp Thr Leu Pro Asp
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 Asn Arg Thr Arg Val Val Glu Asp Asn His Asn Tyr Tyr Val Ser Arg

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Ser His Arg Gln Ala Ser Arg Val Val Leu Ser Phe Asp Phe Pro Phe		
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Tyr Gly His Pro Leu Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile		
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Phe Met Gly Asp Met Leu His Arg Met Leu Thr Ala Thr Gln Tyr Val		
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Ala Pro Leu Met Ala Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr		
180	185	190
Val Ala Tyr Phe Asp Asn Gly Thr Val Phe Val Val Gln Trp Asp His		
195	200	205
Val Tyr Leu Gln Asp Arg Glu Asp Arg Gly Ser Phe Thr Phe Gln Ala		
210	215	220
Ala Leu His Arg Asp Gly Arg Ile Val Phe Gly Tyr Lys Glu Ile Pro		
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Met Ala Val Leu Asp Ile Ser Ser Ala Gln His Pro Val Lys Ala Gly		
245	250	255
Leu Ser Asp Ala Phe Met Ile Leu Asn Ser Ser Pro Glu Val Pro Glu		
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Ser Gln Arg Arg Thr Ile Phe Glu Tyr His Arg Val Glu Leu Asp Ser		
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Ser Lys Ile Thr Thr Ser Ala Val Glu Phe Thr Pro Leu Pro Thr		
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Cys Leu Gln His Gln Ser Cys Asp Thr Cys Val Ser Ser Asn Leu Thr		
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Phe Asn Cys Ser Trp Cys His Val Leu Gln Arg Cys Ser Ser Gly Phe		
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Asp Arg Tyr Arg Gln Glu Trp Leu Thr Tyr Gly Cys Ala Gln Glu Ala		
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Glu Gly Lys Thr Cys Glu Asp Phe Gln Asp Asp Ser His Tyr Ser Ala		
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Ser Pro Asp Ser Ser Phe Ser Pro Phe Asn Gly Asp Ser Thr Thr Ser		
370	375	380
Ser Ser Leu Phe Ile Asp Ser Leu Thr Thr Glu Asp Asp Thr Lys Leu		
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Asn Pro Tyr Ala Glu Gly Asp Gly Leu Pro Asp His Ser Ser Pro Lys		
405	410	415
Ser Lys Gly Pro Pro Val His Leu Gly Thr Ile Val Gly Ile Val Leu		
420	425	430
Ala Val Leu Leu Val Ala Ala Ile Ile Leu Ala Gly Ile Tyr Ile Ser		
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Gly His Pro Asn Ser Asn Ala Ala Leu Phe Phe Ile Glu Arg Arg Pro		
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 Trp Asn Glu Glu Gly Val Glu Val Asp Ser Gln Ala Tyr Asn His Arg
 50 55 60
 Trp Lys Arg Asn Val Asp Pro Phe Lys Ala Val Asp Thr Asn Arg Ala
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 Ser Met Gly Gln Ala Ser Pro Glu Ser Lys Gly Phe Thr Asp Leu Leu
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 Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp
 100 105 110
 His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ala Asp Ser Ala Ser
 115 120 125
 Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys
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 Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn
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 Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Phe Leu Asn Glu Val Thr

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Val Ala Thr Gly	Gly Phe Ile Tyr	Thr Gly Glu Val Val His Arg Met
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Ser Val Ser Arg Asn Ser	Thr Val Arg Tyr Phe Asp Asn Gly Thr Ala	
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Gly Ser Phe Thr	Phe Gln Ala Thr Leu Leu Met Asp Gly Arg Ile Ile	
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Phe Gly Tyr Lys	Glu Ile Pro Val Leu Val Thr Gln Ile Ser Ser Thr	
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Ser Gly Cys Pro Glu	Glu Val Gln Ser Lys Glu Lys Met Cys Glu Lys	
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His Leu Lys Asp Ser	Gly Ala Ser Thr Asp Asp Ser Ala Ala Glu Lys	
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Lys Gly Gly Thr Leu His	Ala Gly Leu Ile Val Gly Ile Leu Ile Leu	
450	455	460
Val Leu Ile Ile Ala	Ala Ala Ile Leu Val Thr Val Tyr Met Tyr His	
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His Pro Thr Ser Ala	Ala Ser Ile Phe Phe Ile Glu Arg Arg Pro Ser	
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Arg Trp Pro Ala Met	Lys Phe Arg Arg Gly Ser Gly His Pro Ala Tyr	
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 <212> PRT
 <213> Mouse

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 35 40 45
 Lys Ser Gly Ser Val Leu His His Trp Asn Glu Ile Tyr Tyr Phe Val
 50 55 60
 Glu Gln Leu Ala His Arg Phe Ile Ser Pro Gln Leu Arg Met Ser Phe
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 Ile Val Phe Ser Thr Arg Gly Thr Thr Leu Met Lys Leu Thr Glu Asp
 85 90 95
 Arg Glu Gln Ile Arg Gln Gly Leu Glu Leu Gln Lys Val Leu Pro
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 Gly Gly Asp Thr Tyr Met His Glu Gly Phe Glu Arg Ala Ser Glu Gln
 115 120 125
 Ile Tyr Tyr Glu Asn Ser Gln Gly Tyr Arg Thr Ala Ser Val Ile Ile
 130 135 140
 Ala Leu Thr Asp Gly Glu Leu His Glu Asp Leu Phe Phe Tyr Ser Glu
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 Arg Glu Ala Asn Arg Ser Arg Asp Leu Gly Ala Ile Val Tyr Cys Val
 165 170 175
 Gly Val Lys Asp Phe Asn Glu Thr Gln Leu Ala Arg Ile Ala Asp Ser
 180 185 190
 Lys Asp His Val Phe Pro Val Asn Asp Gly Phe Gln Ala Leu Gln Gly
 195 200 205
 Ile Ile His Ser Ile Leu Lys Lys Ser Cys Ile Glu Ile Leu Ala Ala
 210 215 220
 Glu Pro Ser Thr Ile Cys Ala Gly Glu Ser Phe Gln Val Val Val Arg
 225 230 235 240
 Gly Asn Gly Phe Arg His Ala Arg Asn Val Asp Arg Val Leu Cys Ser
 245 250 255

Phe Lys Ile Asn Asp Ser Val Thr Leu Asn Glu Lys Pro Phe Ala Val
 260 265 270
 Glu Asp Thr Tyr Leu Leu Cys Pro Ala Pro Ile Leu Lys Glu Val Gly
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 Ser Ser Ser Val Ile Ile Thr Thr His Cys Ser Asp Gly Ser Ile
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 340 345 350
 Pro Pro Pro Val Glu Glu Ser Glu Glu Asp Asp Asp Gly Leu
 355 360 365
 Pro Lys Lys Lys Trp Pro Thr Val Asp Ala Ser Tyr Tyr Gly Gly Arg
 370 375 380
 Gly Val Gly Gly Ile Lys Arg Met Glu Val Arg Trp Gly Glu Lys Gly
 385 390 395 400
 Ser Thr Glu Glu Gly Ala Lys Leu Glu Lys Ala Lys Asn Ala Arg Val
 405 410 415
 Lys Met Pro Glu Gln Glu Tyr Glu Phe Pro Glu Pro Arg Asn Leu Asn
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 Asn Asn Met Arg Arg Pro Ser Ser Pro Arg Lys Trp Tyr Ser Pro Ile
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 Lys Gly Lys Leu Asp Ala Leu Trp Val Leu Leu Arg Lys Gly Tyr Asp
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 Arg Val Ser Val Met Arg Pro Gln Pro Gly Asp Thr Gly Arg Cys Ile
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 <212> DNA
 <213> Mouse

<400> 302

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 <212> PRT
 <213> Mouse

<400> 303

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Ile	Gln	His	Glu	Phe	Ser	Leu	Thr	Arg	Glu	Lys	Arg	Lys	His	Val	Leu
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Ser	Gly	Thr	Leu	Gly	Ile	Pro	Glu	His	Thr	Tyr	Arg	Ser	Arg	Val	Thr
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Leu	Ser	Asn	Gln	Pro	Tyr	Ile	Lys	Val	Leu	Thr	Leu	Ala	Asn	Phe	Thr
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Thr	Lys	Asp	Glu	Gly	Asp	Tyr	Phe	Cys	Glu	Leu	Gln	Val	Ser	Gly	Ala
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Asn	Pro	Met	Ser	Ser	Asn	Lys	Ser	Ile	Ser	Val	Tyr	Arg	Asp	Lys	Leu
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Val	Lys	Cys	Gly	Gly	Ile	Ser	Leu	Leu	Val	Gln	Asn	Thr	Ser	Trp	Met
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Ser	Leu														

<210> 304
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 <212> DNA
 <213> Mouse

<400> 304

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 <212> PRT
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<400> 305
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 35 40 45
 Gly Met Gln Gly Cys Leu Glu Ala Gln Gly Val Gln Val Arg Val Thr
 50 55 60
 Pro Phe Cys Asn Ala Ser Leu Pro Ala Gln Arg Trp Lys Trp Val Ser
 65 70 75 80
 Arg Asn Arg Leu Phe Asn Leu Gly Ala Thr Gln Cys Leu Gly Thr Gly
 85 90 95
 Trp Pro Val Thr Asn Thr Thr Val Ser Leu Gly Met Tyr Glu Cys Asp
 100 105 110
 Arg Glu Ala Leu Ser Leu Arg Met Ala Val Ser Tyr Thr Arg Gly Pro
 115 120 125
 Val Val Pro Ala Ser Gly Gly Ser Cys Lys Gln Cys Ile Gln Ala Trp
 130 135 140
 His Leu Glu Arg Gly Asp Gln Thr Arg Ser Gly His Trp Asn Ile Tyr
 145 150 155 160
 Gly Ser Glu Glu Asp Leu Cys Ala Arg Pro Tyr Tyr Glu Val Tyr Thr
 165 170 175
 Ile Gln Gly Asn Ser His Gly Lys Pro Cys Thr Ile Pro Phe Lys Tyr
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 Asp Asn Gln Trp Phe His Gly Cys Thr Ser Thr Gly Arg Glu Asp Gly
 195 200 205
 His Leu Trp Cys Ala Thr Thr Gln Asp Tyr Gly Lys Asp Glu Arg Trp
 210 215 220
 Gly Phe Cys Pro Ile Lys Ser Asn Asp Cys Glu Thr Phe Trp Asp Lys
 225 230 235 240
 Asp Gln Leu Thr Asp Ser Cys Tyr Gln Phe Asn Phe Gln Ser Thr Leu
 245 250 255

Ser Trp Arg Glu Ala Trp Ala Ser Cys Glu Gln Gln Gly Ala Asp Leu
 260 265 270
 Leu Ser Ile Thr Glu Ile His Glu Gln Thr Tyr Ile Asn Gly Leu Leu
 275 280 285
 Thr Gly Tyr Ser Ser Thr Leu Trp Ile Gly Leu Asn Asp Leu Asp Thr
 290 295 300
 Ser Gly Gly Trp Gln Trp Ser Asp Asn Ser Pro Leu Lys Tyr Leu Asn
 305 310 315 320
 Trp Glu Ser Asp Gln Pro Asp Asn Pro Gly Glu Asn Cys Gly Val
 325 330 335
 Ile Arg Thr Glu Ser Ser Gly Gly Trp Gln Asn His Asp Cys Ser Ile
 340 345 350
 Ala Leu Pro Tyr Val Cys Lys Lys Pro Asn Ala Thr Val Glu Pro
 355 360 365
 Ile Gln Pro Asp Arg Trp Thr Asn Val Lys Val Glu Cys Asp Pro Ser
 370 375 380
 Trp Gln Pro Phe Gln Gly His Cys Tyr Arg Leu Gln Ala Glu Lys Arg
 385 390 395 400
 Ser Trp Gln Glu Ser Lys Arg Ala Cys Leu Arg Gly Gly Asp Leu
 405 410 415
 Leu Ser Ile His Ser Met Ala Glu Leu Glu Phe Ile Thr Lys Gln Ile
 420 425 430
 Lys Gln Glu Val Glu Glu Leu Trp Ile Gly Leu Asn Asp Leu Lys Leu
 435 440 445
 Gln Met Asn Phe Glu Trp Ser Asp Gly Ser Leu Val Ser Phe Thr His
 450 455 460
 Trp His Pro Phe Glu Pro Asn Asn Phe Arg Asp Ser Leu Glu Asp Cys
 465 470 475 480
 Val Thr Ile Trp Gly Pro Glu Gly Arg Trp Asn Asp Ser Pro Cys Asn
 485 490 495
 Gln Ser Leu Pro Ser Ile Cys Lys Lys Ala Gly Arg Leu Ser Gln Gly
 500 505 510
 Ala Ala Glu Glu Asp His Asp Cys Arg Lys Gly Trp Thr Trp His Ser
 515 520 525
 Pro Ser Cys Tyr Trp Leu Gly Glu Asp Gln Val Ile Tyr Ser Asp Ala
 530 535 540
 Arg Arg Leu Cys Thr Asp His Gly Ser Gln Leu Val Thr Ile Thr Asn
 545 550 555 560
 Arg Phe Glu Gln Ala Phe Val Ser Ser Leu Ile Tyr Asn Trp Glu Gly
 565 570 575
 Glu Tyr Phe Trp Thr Ala Leu Gln Asp Leu Asn Ser Thr Gly Ser Phe
 580 585 590
 Arg Trp Leu Ser Gly Asp Glu Val Ile Tyr Thr His Trp Asn Arg Asp
 595 600 605
 Gln Pro Gly Tyr Arg Arg Gly Gly Cys Val Ala Leu Ala Thr Gly Ser
 610 615 620
 Ala Met Gly Leu Trp Glu Val Lys Asn Cys Thr Ser Phe Arg Ala Arg
 625 630 635 640
 Tyr Ile Cys Arg Gln Ser Leu Gly Thr Pro Val Thr Pro Glu Leu Pro
 645 650 655
 Gly Pro Asp Pro Thr Pro Ser Leu Thr Gly Ser Cys Pro Gln Gly Trp
 660 665 670
 Val Ser Asp Pro Lys Leu Arg His Cys Tyr Lys Val Phe Ser Ser Glu
 675 680 685
 Arg Leu Gln Glu Lys Lys Ser Trp Ile Gln Ala Leu Gly Val Cys Arg
 690 695 700
 Glu Leu Gly Ala Gln Leu Leu Ser Leu Ala Ser Tyr Glu Glu Glu His
 705 710 715 720
 Phe Val Ala His Met Leu Asn Lys Ile Phe Gly Glu Ser Glu Pro Glu
 725 730 735
 Ser His Glu Gln His Trp Phe Trp Ile Gly Leu Asn Arg Arg Asp Pro

740	745	750
Arg Glu Gly His Ser Trp Arg Trp	Ser Asp Gly Leu Gly	Phe Ser Tyr
755	760	765
His Asn Phe Ala Arg Ser Arg His	Asp Asp Asp Ile Arg Gly Cys	
770	775	780
Ala Val Leu Asp Leu Ala Ser Leu Gln Trp Val	Pro Met Gln Cys Gln	
785	790	795
Thr Gln Leu Asp Trp Ile Cys Lys Ile Pro Arg Gly Val Asp Val Arg		800
805	810	815
Glu Pro Asp Ile Gly Arg Gln Gly Arg Leu Glu Trp Val Arg Phe Gln		
820	825	830
Glu Ala Glu Tyr Lys Phe Phe Glu His His Ser Ser Trp Ala Gln Ala		
835	840	845
Gln Arg Ile Cys Thr Trp Phe Gln Ala Asp Leu Thr Ser Val His Ser		
850	855	860
Gln Ala Glu Leu Gly Phe Leu Gly Gln Asn Leu Gln Lys Leu Ser Ser		
865	870	875
Asp Gln Glu Gln His Trp Trp Ile Gly Leu His Thr Leu Glu Ser Asp		
885	890	895
Gly Arg Phe Arg Trp Thr Asp Gly Ser Ile Ile Asn Phe Ile Ser Trp		
900	905	910
Ala Pro Gly Lys Pro Arg Pro Ile Gly Lys Asp Lys Lys Cys Val Tyr		
915	920	925
Met Thr Ala Arg Gln Glu Asp Trp Gly Asp Gln Arg Cys His Thr Ala		
930	935	940
Leu Pro Tyr Ile Cys Lys Arg Ser Asn Ser Ser Gly Glu Thr Gln Pro		
945	950	955
Gln Asp Leu Pro Pro Ser Ala Leu Gly Gly Cys Pro Ser Gly Trp Asn		
965	970	975
Gln Phe Leu Asn Lys Cys Phe Arg Ile Gln Gly Gln Asp Pro Gln Asp		
980	985	990
Arg Val Lys Trp Ser Glu Ala Gln Phe Ser Cys Glu Gln Gln Glu Ala		
995	1000	1005
Gln Leu Val Thr Ile Ala Asn Pro Leu Glu Gln Ala Phe Ile Thr Ala		
1010	1015	1020
Ser Leu Pro Asn Val Thr Phe Asp Leu Trp Ile Gly Leu His Ala Ser		
1025	1030	1035
Gln Arg Asp Phe Gln Trp Ile Glu Gln Glu Pro Leu Leu Tyr Thr Asn		
1045	1050	1055
Trp Ala Pro Gly Glu Pro Ser Gly Pro Ser Pro Ala Pro Ser Gly Thr		
1060	1065	1070
Lys Pro Thr Ser Cys Ala Val Ile Leu His Ser Pro Ser Ala His Phe		
1075	1080	1085
Thr Gly Arg Trp Asp Asp Arg Ser Cys Thr Glu Glu Thr His Gly Phe		
1090	1095	1100
Ile Cys Gln Lys Gly Thr Asp Pro Ser Leu Ser Pro Ser Pro Ala Ala		
1105	1110	1115
Thr Pro Pro Ala Pro Gly Ala Glu Leu Ser Tyr Leu Asn His Thr Phe		
1125	1130	1135
Arg Leu Leu Gln Lys Pro Leu Arg Trp Lys Asp Ala Leu Leu Cys		
1140	1145	1150
Glu Ser Arg Asn Ala Ser Leu Ala His Val Pro Asp Pro Tyr Thr Gln		
1155	1160	1165
Ala Phe Leu Thr Gln Ala Ala Arg Gly Leu Gln Thr Pro Leu Trp Ile		
1170	1175	1180
Gly Leu Ala Ser Glu Glu Gly Ser Arg Arg Tyr Ser Trp Leu Ser Glu		
1185	1190	1195
Glu Pro Leu Asn Tyr Val Ser Trp Gln Asp Glu Glu Pro Gln His Ser		
1205	1210	1215
Gly Gly Cys Ala Tyr Val Asp Val Asp Gly Thr Trp Arg Thr Thr Ser		
1220	1225	1230

Cys Asp Thr Lys Leu Gln Gly Ala Val Cys Gly Val Ser Arg Gly Pro
 1235 1240 1245
 Pro Pro Arg Arg Ile Asn Tyr Arg Gly Ser Cys Pro Gln Gly Leu Ala
 1250 1255 1260
 Asp Ser Ser Trp Ile Pro Phe Arg Glu His Cys Tyr Ser Phe His Met
 1265 1270 1275 1280
 Glu Val Leu Leu Gly His Lys Glu Ala Leu Gln Arg Cys Gln Lys Ala
 1285 1290 1295
 Gly Gly Thr Val Leu Ser Ile Leu Asp Glu Met Glu Asn Val Phe Val
 1300 1305 1310
 Trp Glu His Leu Gln Thr Ala Glu Ala Gln Ser Arg Gly Ala Trp Leu
 1315 1320 1325
 Gly Met Asn Phe Asn Pro Lys Gly Gly Thr Leu Val Trp Gln Asp Asn
 1330 1335 1340
 Thr Ala Val Asn Tyr Ser Asn Trp Gly Pro Pro Gly Leu Gly Pro Ser
 1345 1350 1355 1360
 Met Leu Ser His Asn Ser Cys Tyr Trp Ile Gln Ser Ser Gly Leu
 1365 1370 1375
 Trp Arg Pro Gly Ala Cys Thr Asn Ile Thr Met Gly Val Val Cys Lys
 1380 1385 1390
 Leu Pro Arg Val Glu Glu Asn Ser Phe Leu Pro Ser Ala Ala Leu Pro
 1395 1400 1405
 Glu Ser Pro Val Ala Leu Val Val Val Leu Thr Ala Val Leu Leu Leu
 1410 1415 1420
 Leu Ala Leu Met Thr Ala Ala Leu Ile Leu Tyr Arg Arg Arg Gln Ser
 1425 1430 1435 1440
 Ala Glu Arg Gly Ser Phe Glu Gly Ala Arg Tyr Ser Arg Ser Ser His
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<210> 306
 <211> 3987
 <212> DNA
 <213> Rat

<400> 306

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acacagcctg	ggtagctgcc	agttagattt	cagggacgga	gccccgcaaaag	ggggggggaaa	180
tgtggcaatc	catctgggat	gttagacgcg	tggagagggc	tttagcagcat	ttgaccaaaaa	240
cacaggaaat	cactccctcca	cagctccctgg	gccccggcgc	ggctggggcc	actggccggac	300
acccttcggag	accacacgag	tgaccacagag	cgcaagtcgc	cagcgtcccg	gttctgcctg	360
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tggccccccag	gcgtccctgcc	agccttagagg	tcactgttagc	ctgcataatgg	cttctcacgg	480
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gggttcttat	tgggttctct	tttagttggcc	aacccaaagc	aagaactgga	gatgtctata	660
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caccaaatact	gattttttcg	ggaatttgggg	agatccaaaa	agatagctgt	gaatctaatt	3060
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<210> 307

<211> 1180

<212> PRT

<213> Rat

<400> 307

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Trp	Leu	Leu	Thr	Val	Ile	Leu	Gly	Phe	Cys	Val	Ser	Phe	Asn	Val	Asp
					20				25					30	
Val	Lys	Asn	Ser	Met	Ser	Phe	Ser	Gly	Pro	Val	Glu	Asp	Met	Phe	Gly
				35			40					45			
Tyr	Thr	Val	Gln	Gln	Tyr	Glu	Asn	Glu	Glu	Gly	Lys	Trp	Val	Leu	Ile
					50		55			60					
Gly	Ser	Pro	Leu	Val	Gly	Gln	Pro	Lys	Ala	Arg	Thr	Gly	Asp	Val	Tyr

65	70	75	80
Lys Cys Pro Val Gly Arg Glu Arg Ala Met Pro Cys Val Lys Leu Asp			
85	90	95	
Leu Pro Val Asn Thr Ser Ile Pro Asn Val Thr Glu Ile Lys Glu Asn			
100	105	110	
Met Thr Phe Gly Ser Thr Leu Val Thr Asn Pro Asn Gly Gly Phe Leu			
115	120	125	
Ala Cys Gly Pro Leu Tyr Ala Tyr Arg Cys Gly His Leu His Tyr Thr			
130	135	140	
Thr Gly Ile Cys Ser Asp Val Ser Pro Thr Phe Gln Val Val Asn Ser			
145	150	155	160
Phe Ala Pro Val Gln Glu Cys Ser Thr Gln Leu Asp Ile Val Ile Val			
165	170	175	
Leu Asp Gly Ser Asn Ser Ile Tyr Pro Trp Glu Ser Val Ile Ala Phe			
180	185	190	
Leu Asn Asp Leu Leu Lys Arg Met Asp Ile Gly Pro Lys Gln Thr Gln			
195	200	205	
Val Gly Ile Val Gln Tyr Gly Glu Asn Val Thr His Glu Phe Asn Leu			
210	215	220	
Asn Lys Tyr Ser Ser Thr Glu Glu Val Leu Val Ala Ala Asn Lys Ile			
225	230	235	240
Gly Arg Gln Gly Gly Leu Gln Thr Met Thr Ala Leu Gly Ile Asp Thr			
245	250	255	
Ala Arg Lys Glu Ala Phe Thr Glu Ala Arg Gly Ala Arg Arg Gly Val			
260	265	270	
Lys Lys Val Met Val Ile Val Thr Asp Gly Glu Ser His Asp Asn Tyr			
275	280	285	
Arg Leu Lys Gln Val Ile Gln Asp Cys Glu Asp Glu Asn Ile Gln Arg			
290	295	300	
Phe Ser Ile Ala Ile Leu Gly His Tyr Asn Arg Gly Asn Leu Ser Thr			
305	310	315	320
Glu Lys Phe Val Glu Glu Ile Lys Ser Ile Ala Ser Glu Pro Thr Glu			
325	330	335	
Lys His Phe Phe Asn Val Ser Asp Glu Leu Ala Leu Val Thr Ile Val			
340	345	350	
Lys Ala Leu Gly Glu Arg Ile Phe Ala Leu Glu Ala Thr Ala Asp Gln			
355	360	365	
Ser Ala Ala Ser Phe Glu Met Glu Met Ser Gln Thr Gly Phe Ser Ala			
370	375	380	
His Tyr Ser Gln Asp Trp Val Met Leu Gly Ala Val Gly Ala Tyr Asp			
385	390	395	400
Trp Asn Gly Thr Val Val Met Gln Lys Ala Asn Gln Met Val Ile Pro			
405	410	415	
His Asn Thr Thr Phe Gln Thr Glu Pro Ala Lys Met Asn Glu Pro Leu			
420	425	430	
Ala Ser Tyr Leu Gly Tyr Thr Val Asn Ser Ala Thr Ile Pro Gly Asp			
435	440	445	
Val Leu Tyr Ile Ala Gly Gln Pro Arg Tyr Asn His Thr Gly Gln Val			
450	455	460	
Val Ile Tyr Lys Met Glu Asp Gly Asn Ile Asn Ile Leu Gln Thr Leu			
465	470	475	480
Gly Gly Glu Gln Ile Gly Ser Tyr Phe Gly Ser Val Leu Thr Thr Ile			
485	490	495	
Asp Ile Asp Lys Asp Ser Tyr Thr Asp Leu Leu Leu Val Gly Ala Pro			
500	505	510	
Met Tyr Met Gly Thr Glu Lys Glu Glu Gln Gly Lys Val Tyr Val Tyr			
515	520	525	
Ala Val Asn Gln Thr Arg Phe Glu Tyr Gln Met Ser Leu Glu Pro Ile			
530	535	540	
Arg Gln Thr Cys Cys Ser Ser Leu Lys Asp Asn Ser Cys Thr Lys Glu			
545	550	555	560

Asn Lys Asn Glu Pro Cys Gly Ala Arg Phe Gly Thr Ala Ile Ala Ala
 565 570 575
 Val Lys Asp Leu Asn Val Asp Gly Phe Asn Asp Val Val Ile Gly Ala
 580 585 590
 Pro Leu Glu Asp Asp His Ala Gly Ala Val Tyr Ile Tyr His Gly Ser
 595 600 605
 Gly Lys Thr Ile Arg Glu Ala Tyr Ala Gln Arg Ile Pro Ser Gly Gly
 610 615 620
 Asp Gly Lys Thr Leu Lys Phe Phe Gly Gln Ser Ile His Gly Glu Met
 625 630 635 640
 Asp Leu Asn Gly Asp Gly Leu Thr Asp Val Thr Ile Gly Gly Leu Gly
 645 650 655
 Gly Ala Ala Leu Phe Trp Ala Arg Asp Val Ala Val Val Lys Val Thr
 660 665 670
 Met Asn Phe Glu Pro Asn Lys Val Asn Ile Gln Lys Lys Asn Cys Arg
 675 680 685
 Val Glu Gly Lys Glu Thr Val Cys Ile Asn Ala Thr Met Cys Phe His
 690 695 700
 Val Lys Leu Lys Ser Lys Glu Asp Ser Ile Tyr Glu Ala Asp Leu Gln
 705 710 715 720
 Tyr Arg Val Thr Leu Asp Ser Leu Arg Gln Ile Ser Arg Ser Phe Phe
 725 730 735
 Ser Gly Thr Gln Glu Arg Lys Ile Gln Arg Asn Ile Thr Val Arg Glu
 740 745 750
 Ser Glu Cys Ile Arg His Ser Phe Tyr Met Leu Asp Lys His Asp Phe
 755 760 765
 Gln Asp Ser Val Arg Val Thr Leu Asp Phe Asn Leu Thr Asp Pro Glu
 770 775 780
 Asn Gly Pro Val Leu Asp Asp Ala Leu Pro Asn Ser Val His Glu His
 785 790 795 800
 Ile Pro Phe Ala Lys Asp Cys Gly Asn Lys Glu Arg Cys Ile Ser Asp
 805 810 815
 Leu Thr Leu Asn Val Ser Thr Thr Glu Lys Ser Leu Leu Ile Val Lys
 820 825 830
 Ser Gln His Asp Lys Phe Asn Val Ser Leu Thr Val Lys Asn Lys Gly
 835 840 845
 Asp Ser Ala Tyr Asn Thr Arg Thr Val Val Gln His Ser Pro Asn Leu
 850 855 860
 Ile Phe Ser Gly Ile Glu Glu Ile Gln Lys Asp Ser Cys Glu Ser Asn
 865 870 875 880
 Gln Asn Ile Thr Cys Arg Val Gly Tyr Pro Phe Leu Arg Ala Gly Glu
 885 890 895
 Thr Val Thr Phe Lys Ile Ile Phe Gln Phe Asn Thr Ser His Leu Ser
 900 905 910
 Glu Asn Ala Ile Ile His Leu Ser Ala Thr Ser Asp Ser Glu Glu Pro
 915 920 925
 Leu Glu Ser Leu Asn Asp Asn Glu Val Asn Ile Ser Ile Pro Val Lys
 930 935 940
 Tyr Glu Val Gly Leu Gln Phe Tyr Ser Ser Ala Ser Glu His His Ile
 945 950 955 960
 Ser Val Ala Ala Asn Glu Thr Ile Pro Glu Phe Ile Asn Ser Thr Glu
 965 970 975
 Asp Ile Gly Asn Glu Ile Asn Val Phe Tyr Thr Ile Arg Lys Arg Gly
 980 985 990
 His Phe Pro Met Pro Glu Leu Gln Leu Ser Ile Ser Phe Pro Asn Leu
 995 1000 1005
 Thr Ala Asp Gly Tyr Pro Val Leu Tyr Pro Ile Gly Trp Ser Ser Ser
 1010 1015 1020
 Asp Asn Val Asn Cys Arg Pro Arg Ser Leu Glu Asp Pro Phe Gly Ile
 1025 1030 1035 1040
 Asn Ser Gly Lys Lys Met Thr Ile Ser Lys Ser Glu Val Leu Lys Arg

1045	1050	1055
Gly Thr Ile Gln Asp Cys Ser Ser	Thr Cys Gly Val Ala Thr Ile Thr	
1060	1065	1070
Cys Ser Leu Leu Pro Ser Asp Leu Ser Gln Val Asn Val Ser Leu Leu		
1075	1080	1085
Leu Trp Lys Pro Thr Phe Ile Arg Ala His Phe Ser Ser Leu Asn Leu		
1090	1095	1100
Thr Leu Arg Gly Glu Leu Lys Ser Glu Asn Ser Ser Leu Thr Leu Ser		
1105	1110	1115
Ser Ser Asn Arg Lys Arg Glu Leu Ala Ile Gln Ile Ser Lys Asp Gly		1120
1125	1130	1135
Leu Pro Gly Arg Val Pro Leu Trp Val Ile Leu Leu Ser Ala Phe Ala		
1140	1145	1150
Gly Leu Leu Leu Met Leu Leu Ile Leu Ala Leu Trp Lys Ile Gly		
1155	1160	1165
Phe Phe Lys Arg Pro Leu Lys Lys Met Glu Lys		
1170	1175	1180

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<212> DNA
<213> Homo sapiens

<400> 308

gatctccgtg

10

<210> 309
<211> 17
<212> DNA
<213> Homo sapiens

<400> 309

ggggctgccc agctggaa

17

<210> 310
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<213> Homo sapiens

<400> 310

catttttatac tactgtc

17

<210> 311
<211> 17
<212> DNA
<213> Homo sapiens

<400> 311

ctttctttga gttttaa

17

<210> 312
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<213> Homo sapiens

<400> 312

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17

<210> 313
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